

s- o- n- l- c p- r- o- c- e- s- s

ACTAR
A

s- o- n- l- c p- r- o- c- e- s- s

ML
141
B2
M3
2002

9 7884951951137

Sonic

Process

Ambient

Chill out

Flyers

Duploplate

Dub

Rave

Travelers

Loop

Techno

Trance

Minimalism

Detroit bass

Electronica

Intelligent

Dance

Electro acoustic

Analogical

Synthesizer

Digital

Pug-in

Sequencer

Punderphonics

MIDI

Sampler

Remix

DJ

Sound system

Cut

Scratch

Crossfader

MC

Drum'n'bass

Jungle

Garage

House

Hip hop

Deep house

Acid house

Beat

Trip hop

Breakbeat

Afrofuturism

Acid jazz

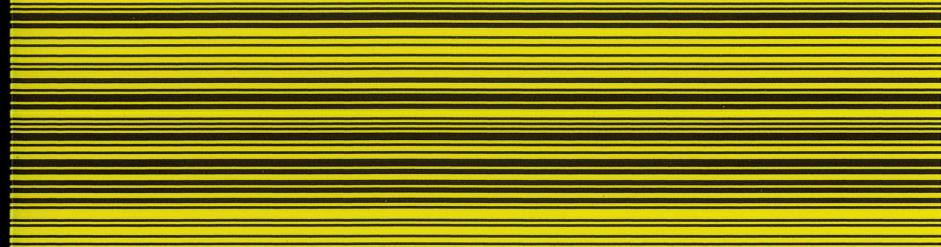
Label

VJ

MAC BA
Museu d'Art
Contemporani
de Barcelona

ACTAR
A

The exhibition *Sonic Process. A New Geography of Sounds* would not have been possible without the generous support and collaboration of the artists who have taken part in it:



ISBN 84-95951-13-4

Doug Aitken; Matt Black and Jonathan More (Coldcut);
Mathieu Briand; Richard Dorfmeister and Rupert Huber (Tosca);
Renée Green; Martí Guixé; Mike Kelley; Gabriel Orozco;
Anna Piva, Edward George and Trevor Mathison (Flow Motion);
Robin Rimbaud (Scanner), and David Shea.

SONIC PROCESS

CARLETON UNIVERSITY LIBRARY



12015683410

DATE DUE

APR 18 2006

JUN 21 2010

NOV 14 2010

MAR 14 2013

OCT 15 2015

UPI

PRINTED IN U.S.A.



MA
BA Contemporani
de Barcelona

216019

**Sonic Process.
A New Geography of Sounds**

MACBA, Barcelona, May 4 - June 30, 2002

MNAM / Centre Pompidou, Paris, October 16, 2002 - January 6, 2003

Podewil, Berlin, March - May 2003

Acknowledgements

Labels

75 Ark (USA), Angström (F), Ant-Zen (D), April Records (DK), Barclay (F), Basic Channel (D), BC Recordings (UK), Big Dada (UK), Bip-Hop (F), Blast First (UK), Blonde Music (F), BMG (D), Burial Mix (D), Caipirinha Productions (USA), Le Cercle rouge (F), Chain Reaction (D), City Centre Offices (D-UK), Crammed Discs (B), Éditions Argile-Cezame (F), Expressillon (F), Fat Cat (UK), F-Communications (F), Force Inc. (D), G-Stone Recordings (A), Imbalance (D), IK7 (D), Kitty-Yo (D), La Chunga Music Publishing (D), Labels (UK), Leaf (UK), List (F), Lucky Kitchen (E), Matador (UK), Max-Ernst (D), Mego (A), Metamkine (F), Mille Plateaux (D), Morr Music (D), Mute (UK), Ninja Tune (UK), Novamute (UK), Ntone (UK), Payola (D), Pias Recordings (B), Quatermass (B), Raster-Noton (D), Rephlex (UK), Ritornell (D), ~scape (D), Select Cuts (D-UK), Skintone (UK), Sonig (D), SSR (B), Staalplaat Records (NL), Staubgold (D), Strictly Confidential (UK), Sulphur (UK), Touch (UK), Tricatel CMG (F), Variz (P), Virus Recordings (UK), Warner Chappell Music Publishing (D), Warp Records (UK), Ya Basta I (F), Zomba Records (D).

Radios and televisions

Arte, Francia (Angélique Oussedik, Angelina Medori); ORF Kunstradio, Vienna.

Producers

Allegri Films (Frank Scheffer and Roelf Jan Wentholt), Column One (Robert Schalin-ski and René Lamp), Program 33 (Elizabeth Rivière), VPRO (George Brugmans, Judith Michels, Martine Moonen), and also Émilie Deleuze and Marc Nicolas.

ML

141

B2

M3

2002

Sonic Process. A New Geography of Sounds

Christine Van Assche

5

Metamorphosis of the Muses

Jacques Rancière

17

Digital Electronic Music: Between Pop and Pure Mediality. Paradoxical Strategies for a Refusal of Semantics

Diedrich Diederichsen

31

Appropriations: Deaths of the Author in Electronic Music

Elie During

39

Life in Transit

David Toop

59

A Tale of Three Cities

Simon Reynolds

73

Ghostlines: Migration, Morphology, Mutations

Kodwo Eshun / Edward George

101

Cagean Philosophy: A Devious Version of the Classical Procedural Paradigm

Francisco López

111

Bibliographic selection

117

SONIC PROCESS. A NEW GEOGRAPHY OF SOUNDS

CHRISTINE VAN ASSCHE

"Art is defined in keeping with a future to be constructed; it joins forces with all the utopias of transformation." Jacques Rancière¹

"Between a simple acoustic recording using a single microphone at the beginning of the century, and the subtleties of digital reproduction today, there is a world of difference, both technically and artistically." Gérard Genette²

Exhibiting sound

Eleven years after the *Passage de l'image* exhibition, organized and put on in Paris and Barcelona,³ with the objective of looking at the relations between the cinema and other visual arts (relations which would be re-examined in a number of other exhibitions), we have now decided to examine electronic music creation from the past ten years and its relationship to the visual arts.

The 1970s bore witness to numerous musical performances, given by such musicians as Laurie Anderson, Tony Conrad, La Monte Young, Terry Riley and others, as well as to countless sound experiments done by such poets as William Burroughs, John Giorno, Brian Gysin, Patti Smith - to quote a few. Though it flirted conceptually with the visual arts, this sound-based expression never found its place in a museum.

Indeed, by tradition, art history distinctly separates the analysis of these two disciplines: visual arts and music. Naturally enough, museology has integrated this scission. It was not until the advent of cinema (with its soundtrack), and especially video, which integrated sound and music as components intrinsic to the work itself, that museums raised the question as to the place of sound in the multiple realms of creation.

One should not hesitate to bear in mind that this "music" from the 1970s, being very close to performance art and minimal or conceptual installations, was at the time only played in parallel festivals, in certain alternative spaces or in the homes of the artists themselves. It was afforded no "official" status or recognition. It is only recently that certain exhibitions, *Les Immatériaux* (1985), *Hors Limites* (1994) at the Centre Pompidou in Paris, *Out of Actions* (1998) at the MOCA in Los Angeles, *Crossing* (1998) at the Kunsthalle in Vienna, *Minimalismos* (2001) at the Centro Reina Sofia in Madrid, *010101. Art in Technological Times* (2001) at the SFMOMA in San Francisco, have integrated musical or sound works into their multidisciplinary approaches.

Several exhibitions, more specifically focused on the realm of sound, were nevertheless held in museums over the past several years, including *Voices* (1998), at the Witte de With in Rotterdam, *Lost in Sound* (1999) at the Centro Galego de Arte Contemporánea in Santiago de Compostela, *Sound and Files* (2000) at the Kunstlerhaus in Vienna, *Sonic Boom* (2000) at the Hayward Gallery in London, *Sound Art - Sound as Media* (2000) at NTT/ICC in Tokyo, and *Bed of Sound* at PS1 in New York (2000). Annual festivals have been established: *Ars Electronica* in Linz, *Sonar* in Barcelona, *Nouvelles scènes* in Dijon, while certain other sites have devoted programming to sound-related events: Confort Moderne in Poitiers, Noise Museum in Nevers, Podewil in Berlin, and so on.

These different events, each time more numerous, bear witness to the construction of an electronic (sound-based and musical) culture over the course of the past fifteen years. Today, this culture is gaining momentum, as a result of the interest of creators, producers and listeners for the creative potential of the electronic sphere. Conferences, symposiums, meetings of musicians and critics - primarily in the English-speaking countries - have accompanied these events. "In many respects", Jean-Luc Nancy recently pointed out, "music is probably the art practice which, over the past century, has undergone the most significant technical transformations - both from the perspective of its devices and its internal materials (its sound values as a whole), and from the perspective of its means of reproduction, amplification, propagation, which have also become, through electronics, means of creation, and of which the word "synthesizer" may be seen as a sort of emblem. At the same time, and along a path rich in consequences [...], the social and cultural conditions of musicality as a whole have changed."⁴

On that basis, and beyond the misgivings expressed in the article "An Academic Cut-Up" by Mike Kelley regarding the museum's ill-adaptation to any "exhibition" of music,⁵ it struck us as important to present today - if only to assert the federating concepts - within the framework of a museum and an exhibition, musical and sound-related research stemming, on the one hand, from specific inventions dating from the late twentieth and early twenty-first centuries, such as the laptop computer, Internet databanks, the sequencer, MP3, M.I.D.I., the home studio, and on the other hand, linked to new attitudes such as nomadism, "frequent flyer" programs, Internet communications, computer sampling, and so on.

The word "sonic", which appears in the exhibition's title, covers the research carried out either in a purely sound-based realm, or in the field of musical experimentation. The association of the two terms "sound" and "musical" stems from the desire to go beyond the borders of these realms, to better grasp the creative flux.

Given the profusion of creation in the field of electronic music, the objective of the exhibition *Sonic Process* is obviously not to provide an exhaustive presentation of the (constantly shifting) tendencies and ramifications of the past few years.⁶ It is not certain that it would even be possible to do so in the necessarily restricted framework of an exhibition. For similar reasons, it was not conceivable to explore all the continents and all the sites of creation.

Hence, it was a subjective choice that guided this event toward computer-generated music and sounds - generated principally by small computers (equipped with sequencer-type software) - enabling experimentation with parameters linked to rhythm and flux. The project took shape around a selection of works which recycle material stemming from the recent history of music, thus having to do with memory. It might initially seem paradoxical to bring computer-conceived works into relation with the work of memory, but the methodology used by the musicians is based upon the appropriation of existent sounds, their repetition, juxtaposition, layering - operations which are all made possible by computer techniques (pasting, cutting, flowing and so on). Even if the practices of collage, cut-up and appropriation are commonplace in the realm of art, computer technology reactivates them by giving them new meaning.

This aesthetic thus offers an extremely contemporary vision of the world using data related to the recent history of musical creation, and is based upon certain tendencies connected to such shifting categories

as drum'n bass, ambient, post-dub, jungle, and electronica...⁷

Also included in our selection are forms of music characterized by cultural cross-over. It was already known that music, more than any other artistic form, has chosen integration as a way of rethinking, reinventing and remixing creations stemming from different cultures, origins and continents. This is the case for jazz, funk and world music, amongst others; in this regard, amongst the inventors of modernity, one might mention John Cage, Pierre Henry, La Monte Young, Pierre Schaeffer, Karl Stockhausen, Edgar Varèse...

Internet, that infinite space of cultural connections, must also be henceforth added to the list. Artists' sites are cropping up everywhere, making it possible to follow the development of their research, thereby enriching the work of the whole creative community through information flux and data exchange. The world of the Internet thus confronts us with a highly "rhizomorphic" vision of aesthetics and a "deterritorialisation" of our aesthetic-geographic knowledge.

Processes

Processes of creation are obviously dependent on the information that musicians glean from the Internet, but also on the small machines and software available on the market (G4, sequencers, MP3, M.I.D.I., audio-numeric cards and so on). The latest generation of computers and software has now made it easy for the musician to record, create, produce and edit music alone, in his or her own home studio.

There is no doubt whatsoever that the extraordinary take-off of electronic music was provoked by factors similar to those Jean-Yves Bosseur set out to identify for electroacoustic music, that is, "the proliferation of production units facilitated by the development of more accessible and mobile technologies, able to respond to the most diversified aesthetic aspirations: the aspiration to work directly on sound material without necessarily having to withstand the test of writing or depending upon the constraints of instrumental performance; the passion for practical information and the extensions it supposes with regard to the use of synthesizers."⁸

On the other hand, it is not rare to discover certain musicians inventing their own tools: Robin Rimbaud, a.k.a. Scanner, developed the so-called "Scanner" microprocessor "making it possible to go into an inti-

mate and vulnerable space, without being either seen or known, with the objective of finding very clear sounds and signals, recording voices, choosing samples, fragments of atmospheric frequencies, as well as radios."⁹ Musicians like Matt Black and Jonathan Moore from Coldcut, meanwhile, have come up with their own software - called "Vjamm" - which enables the identical treatment, on the basis of the same flux, of sounds and images; a software, which, during the exhibition, will be made available to the public, along with a databank made up of the musicians' archives.

Rather than leaving us indifferent, relations between visual and sound processes have gripped our attention all the more so that portable computers and their software now generate images and sounds conceived according to the same criteria. "What you see is what you hear", assert Jonathan Moore and Matt Black. Yet, as Jean-Luc Nancy has pointed out, "it would be captivating to study the differences and similarities between 'musical' synthesis and visual 'synthesis': how the latter refers more obviously, at least at first glance, to the re-composing of pre-given forms, whereas the former seems more to extract new ore from its machines."¹⁰

Production processes refer back to the artist as such. Not only does the artist himself focus on creating his work, but also producing and distributing it, as opposed to most filmmakers and video artists, who have to resort to producers, or to classical and rock / pop musicians, who also turn to intermediaries to produce and distribute them. The electronic musician thereby preserves his autonomy with respect to economic systems.

Distribution processes take a variety of paths. First of all, the performance; or musical creation in the presence of the public. One should bear in mind the connections which were established, in the 1970s, between music and the visual arts. Obviously there is little apparent aesthetic complicity between Glenn Branca, Allan Kaprow, La Monte Young, Alvin Lucier, Meredith Monk, Charlemagne Palestine, Steve Reich, Terry Riley or even John Zorn, and electronic music. Yet one of the things these artists have in common with the musicians of today - and this is something which is of interest to us here - is the desire to address a public, to have contact with listeners, to be receptive to sensitive feedback.

For contemporary electronic musicians, live performances remain a preferred form of distribution. However, they are by no means tempted

by the spectacular aspect of performance art. They seek out neither stages nor theatrical lighting. The cult of the star that one comes across in pop and rock culture is unknown in this domain. Andy Warhol has no acolytes amongst electronic musicians.

Looking at distribution processes leads us to reflect on the possibilities for exchanges and distribution over the Internet. "The personal computer's Internet connection splits open the walls of the home studio ever wider. For a long time now, musicians have gotten used to downloading both tones and cutting-edge software from the web, as Bruno Heuzé has pointed out.¹¹ To be permanently in contact with movement, change, shift and transformation via the web can scarcely fail to influence the processes of creation.

Another important factor is the distribution by means of CDs – a multiple that can be listened to everywhere and can be cut at home. With electronic music, the artwork moves from the era of mechanical or "technical reproducibility" to the era of digital hyper-reproducibility – to an extent that even Benjamin himself might not have dared to imagine. Henceforth, there is no longer any question of an original. Everything takes place through duplication. The computer and the network have merely accelerated a process that has been underway for some fifty years.

The opportunities for cutting CDs and digital diskettes, and the ease with which distribution over the web is possible, has enabled creators to elude the traditional circuits of publishing companies. Artists are able to create their own labels. Thus, Scanner and David Shea launched Sulfur, Coldcut launched Ninja Tune, Carsten Nicolai Raster-Noton, and so on. These micro businesses eliminate commercial distribution circuits just as they distance them from the subtle and restrictive visual-arts markets.

Geography of *Sonic Process*

This project was initially to have covered the musical creation of the entire world. But was it not utopian to want to grasp creation as a whole? All the more so that, in the initial phases of research, it became obvious that merely listening to a CD over the Internet would not suffice for the preparation of an event of this kind. An inquiry had to be carried out on the locations of creation and distribution. With one crucial observation: the music "centers" are not the same as those of the visual arts. Hence the need to draw up a new international topography of crea-

tion. A cartography emerged, highlighting trajectories: Berlin/London, Kingston/Detroit/London, Vienna/New York, Mexico, Brussels/Sheffield; as well as cities such as Marseilles, Nantes, Manchester and Porto.

The exhibition

It might seem unusual to put together an exhibition of sound works – even if the exhibitions mentioned above already raised the issue, though without totally resolving it. *Sonic Process* is thus conceived as a further attempt in this direction, drawing upon others' experiences in the past.

Musicians and visual artists were offered spaces to present works in the form of installations. Databanks have been used to broaden and bring up to date this first selection by making some hundred extra titles available.

The invited artists were thus provided with a physical space, comprised of a certain number of square meters. Certain musicians chose to team up with visual artists for a collective creation, obliging the organizers to adapt to *the production processes* in order to transpose into a physical space what is usually expressed through performance. Moreover, the exhibition of sound works runs up against museology. For the museum still remains a site principally conceived for the hanging of two- or three-dimensional visual works.

The project's acoustic architecture consists of inventing solutions enabling the best possible listening conditions as well as the most adequate phonic insulation, in order to foster the concentration and comfort needed for listening. The museological objective thus lies in recreating the best model ever conceived for listening to sound: the sound studio. The circulation and placement of the works with respect to one another was governed by functional questions alone. Under such circumstances, it was not conceivable to imagine a conceptual trajectory the way curators are accustomed to doing.

A second set of spaces offers a consultation of multiples (CDs, sites, video tapes) drawing upon a dozen databanks (*Data Square/Mptree*). These make it possible to broaden the concept of the exhibition to other works, other aesthetics, other territories and geographies.

However, the question of presentation arises once again. Although several artists have given it thought (Dan Graham, Vito Acconci, as well as Angela Bulloch, Johan Grimmonprez, Douglas Gordon, to mention only a

few), museums have nevertheless not yet managed to put together a museology of presentation perfectly adequate to these types of products. Artist-designer Marti Guixé has conceived a configuration of spaces, warmly incorporating the technologies which make it possible to consult these many works in optimized visual and sound-sensitive comfort.

A third type of space contains the website (an information, documentation and current-events site).

Lastly, a series of concerts and performances by the musicians involved reconsiders the relations with the public.

The sound work: status, aesthetics, audience

The objective of this project is not to present at all costs "art objects" that the historian could fit into a continuity. Contrary to the exhibition *Crossings* (in Vienna), which proposed the traces of sound or musical performances, or *Sonic Boom* (in London), which sought to provide visual and sound-based "installation sculptures", the sound installation in *Sonic Process* is presented in its performative and inevitably changing form, at the risk of the artwork losing its limits, as certain critics fear. It remains that there is still no common understanding as to the definition of these limits or of their temporality. Does the provisional character of electronic compositions, inasmuch as they are subject to permanent enrichment, throw their existence into question? Notwithstanding this permanent question, and despite the pressure of current aesthetic trends, *Sonic Process* presents several artistic-project models. In the 1970s, visual and sound performances were not inscribed in a memory process. Numerous performances by Tony Conrad, La Monte Young, Alvin Lucier, Charlemagne Palestine, Nam June Paik, and so on were never done with the intention of being recorded and preserved. They only existed at the time of the action itself. In the current decade, these works have sought out a new status, notably on the basis of their displacement, their shifting state, and their metamorphosis in space and time.

In a recently published book, *Écoute. Une histoire de nos oreilles*, the author, Peter Szendy, points out that the paradigms of listening and of the listener are important for the author/artist.¹² The work is able to exist for certain musicians only in permanent confrontation with a public. Thus, David Shea, who spent a year developing the creation software *2001 - A Soundfilm in Eight Acts*, will continue, throughout the exhibi-

tion, to modify the different parameters of his work, either over the web, or through his active presence on the exhibition sites. In the same way, Flow Motion's installation, *Ghost Dance*, will be permanently reinvented through the interference between the surrounding sounds (four microphones placed at the four cardinal point of the building) and a specially prerecorded creation. "The death of the author," writes Ulf Poschardt, "coincides with the resurrection of the reader; transferred into music, the death of the composer coincides with the resurrection of the listener. [...] The Barthesian reader is not a person in possession of a history, a biography, a psychology. He is merely the being who accumulates in himself all the voices and tracks which constitutes the text."¹³ Mathieu Briand, on the other hand, has conceived for *Sonic Process* a space to present his own work and the permanent remix and recording, by the public, of pieces to be cut onto; a permanent confrontation between an old support - vinyl - and an attitude of today - the mix - is thus created in this space. Briand's work emphasizes the importance of the vinyl support for independent musicians - an importance that sociologist Jérôme Guibert accounts for as follows: "Vinyl is an active gesture against the race for the perfect sound, in other words, for the clinical and soulless sound. Contrary to the laser recording, vinyl is a living object, whose wear - through crackles - is personalized.... It is not dead because of the activism of the independent labels."¹⁴

Shared sources

It is not rare that the electronic musician borrows bits and pieces from his peers and draws upon archives that are now available to all. The issue here is not, as in the visual arts, appropriation or ironic misappropriation. This way of working - which differs from collage, or from ironic visual quotation in the cinema and the visual arts, collage and cut-up in literature, the use of found footage in experimental cinema - reveals growing interest amongst artists for the re-conceptualization of material, upon which the world of creation has already conferred meaning. It is not an aesthetics of recuperation or a poor man's art, but a prospective procedure. Michel Chion, in an essay devoted to electro-acoustic music, published in 1982,¹⁵ refers to this process by listing off the manipulations carried out by the composer on his source material: visible or invisible editing, looping, reverse playback, changing speed, frequency modula-

tion, reverberation, echo, layering, mixing, spatialization – an inventory to which we can add other more contemporary notions such as sampling, breaks (and other perturbations) in rhythm, frequency filtering, repetition, mix or remix, equalization, distortion, amongst others.

Theory / catalogue

To accompany the work of musicians and creation processes, it seems indispensable to discern the field of electronic music in theoretical terms. The latter has another acoustic dimension which links it neither to electro-acoustic music nor to concrete and electro-instrumental music. Computer technologies opened up new territories. As Diedrich Diederichsen has argued, the recordings are neither tonal nor atonal: "A considerable quantity of 'fractal' notes are recuperated in the 'intervals' of the notes themselves, which, far from disappearing into an infinite chaos of possible combinations, establish new rules on a case by case basis, thus disclosing to the listener the extent to which they elude any sort of musicological classification."¹⁶

In France, it was in journals such as *Nomand's Land* and *Octopus*, during the 1990s, in the debates organized by Confort Moderne in Poitiers in January 1998,¹⁷ the special issues of *Art Press* devoted, respectively, to "Techno, anatomy of electronic cultures,"¹⁸ and to "Territories of hip-hop,"¹⁹ which made it possible to become more familiar with the theories of (or related to) electronic music. Nevertheless, despite these early disclosures, French researchers and critics took very little interest in the theoretical territories linked to the musical models of today, leaving it to their counterparts in the English- and German-speaking worlds the task of defining a model based on the humanities, philosophy and music criticism. Diedrich Diederichsen, Kodwo Eshun, Ulf Poschardt, Peter Shapiro and David Toop are the indisputable historians and critics in the field, supported in their task by the English journal *The Wire*, which took a very early interest in electronic music, and organized debates in London and elsewhere (*Sonar* in Barcelona, for instance). The same goes for the German journal *De: Bug*, which enabled an in-depth approach both to German and international events.

Forgive us for not mentioning here in a more exhaustive way the events, debates and workshops which have been held in Germany (*Make it funky*), in Belgium (amongst others, thanks to the Incident and Constant

organizations), in Italy (thanks to Link), in Great Britain in the framework of various festivals or organized by the ICA in London, and so on, as well as in the Nordic countries.

This work does not tackle head-on the aesthetic issues linked to these creations, but deals rather with how they fit into our era. Thus, it looks into questions related to context, to the status of the work and the author, the economy of the field, production processes, as well as questions concerning crossovers between the visual arts and electronic music. The various authors' contributions form a sort of cartography of electronic music, sketching out the political, economic, anthropological trajectories, respecting aesthetic and creative flux...

The analysis of electronic music both through its history, its social context, and its otherness as well as in terms of its instruments and supports, constitutes the backbone of the work, which thereby seeks to account for the new conditions of production and distribution which appeared in this domain toward the end of the twentieth century.

Similarly, it seemed indispensable to offer the reader a (non exhaustive) inventory of the terms (along with their meanings) supposed to characterize the many and varied aspects of this shifting terrain which is electronic music. However, because most of the musical movements are in perpetual evolution, and subject to forms of recycling, scission, revival, remixing, the glossary makes no claim to anything but shedding light on the state of this music at a given moment of its relatively youthful history.

Lastly, as the history is still ongoing, we did not seek to assign any "father figure" to electronic music. We have worked with the present situation and will leave it to future projects to inscribe this music into broader historical perspectives. We have observed tendencies, sought to capture shifts, grasp a certain memorization of the world in an era of hyper-reproducibility and the globalization of exchange.

Christine Van Assche

Notes

1. Jacques Rancière. Lecture given at the Louvre, Paris, 28 January 2001.
2. Gérard Genette. *The Work of Art: Immanence and Transcendence*. Translated by G. M. Goshgarian. Ithaca: Cornell University Press, 1997.
3. Exhibition *Passages de l'image*. Paris: Centre Pompidou, Galeries Sud, September - November 1990.
4. Jean-Luc Nancy. "Ascoltando", preface to Peter Szendy, *Écoute, une histoire de nos oreilles*. Paris: Les Éditions de Minuit, 2001.
5. Mike Kelley. "An Academical Cut-Up". *Sonic Process*. Paris: Éditions du Centre Pompidou, 2002.
6. See the glossary in this catalogue, where these various tendencies are mentioned. Other future events will deal with industrial, garage, house, dance and noise music, along with their numerous rhizomes.
7. It would, however, be interesting to pursue this event through a series of other projects, presenting such other tendencies as minimal electronic music.
8. Jean-Yves Bosseur. "Quelles musiques contemporaines?" *La Revue des Deux Mondes*, "À quoi sert la musique contemporaine," January 2001.
9. Peter Shapiro. *Modulations*. New York: Caipirinha Productions, 2000.
10. J.-L. Nancy. "Ascoltando". *Op. cit.*
11. Bruno Heuzé. "Home studio". *Sonic Process*. Paris: Éditions du Centre Pompidou, 2002.
12. P. Szendy. *Écoute...* *Op. cit.*
13. Ulf Poschardt, *DJ Culture*. London: Quartet Books, 1998.
14. Jérôme Guibert. *Les Nouveaux courants musicaux: simples produits des industries culturelles*. Nantes: Éditions Sèteun, 1998.
15. Michel Chion. *La Musique électroacoustique*, Paris: PUF, 1982.
16. Diedrich Diederischen ["Vom Ende der Wahrheit", in *Konkret*, n° 5, 1990]. Quoted by U. Poschardt in *DJ Culture*, *op. cit.*, p. 315.
17. *La Musique techno. Approche artistique et dimension creative*. Acts of the Symposium of 22 and 23 January 1998 (Confort Moderne and the National Conservatory of the Region, Poitiers). Poitiers: Éditions Le Confort Moderne and Ardiamec Poitou-Charentes, 1998.
18. *Art Press*, "Techno, anatomie des cultures électroniques". Special edition, 1998.
19. *Art Press*, "Territoires du hip-hop". Special edition, 2000.

METAMORPHOSIS OF THE MUSES

JACQUES RANCIÈRE

Rectangles and mazes filled with loudspeakers and screens. These are above all sculptural objects architecting and sculpting a space. They are also instruments for the production of images and sounds, surfaces for their dissemination, but also metaphorisations of the activity that produces them, of the meaning of this activity and its way of world-making. On these surfaces, in these volumes, bits and pieces of story are created and undone, engendered by sounds, programmed by computers, triggered by select participants or by the footsteps of passers-by as they move about through a squared-off area. Abstract lines or excerpts from films, images of opera choruses or bus routes, advertising jingles or shots on goal flash by on the screens. Sounds of water engender desert images, symphonic flights of fancy transfigure scenes of everyday life. The screen sometimes goes black to attest to music's power to create images all on its own. Conversely, the tricks of sound dissolve into the projection of light - asserting itself as if it alone generated the visible. These metamorphoses of the sound-image - inasmuch as they tend to identify with the very processes of the production of all seen and heard stories - themselves lead back toward two great narratives, two large demonstrations of metamorphic power. On one of the installation's coupled-up screens, two stories face one another, as if revealing the truth of all the others: on one side is a cloud of immaterial matter, where light and sound dissolve into their primal unity; on the other, images of DJ's at work or of spinning turntables. Two great metaphors of aesthetic *ultima ratio*: on one hand, the immaterial luminous-sound material in movement, which, within its eternal desirelessness, engenders all form and all melody. On the other, the activity of sovereign artistic will, which grabs hold of all matter, form or technique, which makes art with the noises and silences of the world, with the voices on the radio or the TV and adver-

tising jingles as well as with all recorded and remixed music, from Bach to Michael Jackson, Balian gamelans and Senegalese drums to electronically produced sounds, which for that purpose make use of the computer's silent calculations like the scratching of the needle on the record-player or the crackling sounds of the amplifier. This double game of spiritualised matter and of sovereign manipulation splits the exhibition space in two. It makes it at once into a closed room, where art can exhibit the contradiction of its principle, and a space shot through by the voices of elsewhere – reconfigured by their noise. Indeed, the sound device which constructs a closed-off space by reproducing all forms of music – including that made up of the conditions of its production and distribution – thereby opening up to voices and sounds on the outside: both the noise of the world that surrounds the museum and – or so we are assured – the voices of the dead, recorded in cemeteries.

Let us leave the ghosts aside for the time being. They have a well-known penchant for becoming talkative whenever the inventions of technique propose new means of exploration of an unknown world and a poetics of remythologisation of the world as a substitute for revolutionary nostalgia, and as a supplement to the rationality governing the exchange of commodities, opinions and leisure. Let us concentrate, rather, on what is behind the encounter of electronic sound and images, just as in the early years of the phonograph and the cinema, of radiology and the telephone. The voices of ghosts metonymise the device by which the sound and the image are doubly united: through their common dissolution in a cloud of matter similar to that of the spirit, and, conversely, through the collection of voices and recorded sounds, constantly augmented and made available for an infinite number of transformations, in the same way that unusable commodities such as visual artworks, street posters and shop signs have, for a long time now, been brought down to the common identity of fragments available for any new art arrangement. The fusion of sound and image in a single and, at once open and closed space, also has to do with the equality between art and non-art: artistic sovereignty competes with infinite reproduction; just as computer operations compete with the rhythm of ancestral gongs and the grating of the mechanical tool; just as the manipulation of microphones compete with the evocation of the dead; social critique with board games; and the recycling of fragments and waste with loss in the great primordial ocean.

In all of this, some will perceive a new age of art – critical and egalitarian – deposing not only the hierarchies of the visible and the audible, music and noise, but also those of production and consumption, artistic creation and mechanical reproduction. The circulation between the high and the low, the old and the new, the inside and the outside, composes for them the figure of a critical art, reconsidering – with the laws of property – all the signs and messages in which art, business and domination merge and disband. Unless it draws up a new geography, a figure of the “fourth world,” erasing the economic and geopolitical divisions of wealth and domination. Others, however, will deplore the triumph of an art which has become similar to its opposite, rejecting all materials and techniques through which each art asserted its difference from the commodities and signs of business, and has ended up blending into a common undifferentiated sensorium. The fusion of the inside and outside, sound and image, music and noise, the visual artwork and the reprocessed message is for them but the latest in an interminable list of transformations of the primordial disappearance, through which the work of the tailor is hidden in the commodified clothing. It is nothing but *spectacle*, that is, the ultimate accomplishment of commodity fetishism. Things are beginning to come to light: nothing is closer to the exhibition of market domination than the critical misappropriation of its emblems; nothing is closer to the total artwork than the construction of advertising environments. However, rather than deciding upon what is indiscernible about these proximities, it may be useful to reactivate the elements and to release the stratifications which problematise the aesthetic and political meaning of this audio-spatial sensorium.

At the outset, one would doubtless descry the wrath of the philosopher Plato, at the all too ingenious machines which facilitate the further debasement of the mimetician, pushing him to new extremes: “He will think nothing unworthy of himself, so that he will attempt, seriously and in the presence of many, to imitate all things – claps of thunder, and the noise of wind and hail and axles and pulleys, and the notes of trumpets and flutes and Panpipes, and the sounds of all instruments, and the cries of dogs, sheep, and birds – and so his style will depend wholly on imitation in voice and gesture, or will contain but a little of pure narration.” Narration, of course, is monophonic speech which states only the content of actions and discourses. It is the speech of one who addresses citizens who have but one thing to imitate: to embody, that is, the virtue which puts them

in their place and renders them apt for their task. It is in this way that the mathematical and ethical essence of music is achieved: the submission of the multiple to the law of unity. To which the philosopher opposes the anarchistic space of mimesis, which is, above all, the location of the multiple: the space of poets and actors who imitate all characters, of machines that imitate all sounds, multitudes that acknowledge through their applause the celebration of their (counter) virtue, the space of that big noisy animal whose name is the people. Thus the Platonic ethical prescription durably establishes a negative figure of the audio-spatial, by denouncing the conspiracy of theatrical space with the noise of generalised reproduction and the amorphous equality of the "rule of the masses." Notwithstanding those who would relegate it to an antique store or circumscribe it in a totalitarian hell, one has little difficulty in hearing the familiar sounds of the dread of modern art and the polemics of our liberal societies. Through all the turns and detours of the negative dialectic, it inspired the Adornian denunciation of the "rhythmico-spatial," the pictorial "pseudomorphosis" of musical time and the return to primitivism by means of technique of which Stravinsky was the exemplary representative.² No doubt the unresolved contradiction in Adorno's thought takes the place of Platonic unison. But on top of the Schönbergian tension of mastered time and the subjective suffering it expresses, comes the "Doric" tension which provided calm and courage to the Platonic warriors, just as the spatial and sound-oriented slackening-off specific to the "Lydian" mode, stigmatised by Plato, finds in the embryonic melisms and wild rhythms of the *Noces du printemps* its modern version. The same repulsion with regard to the theatrical wedding of sound and image, of space and machine, today inspires the denunciation of these rectangles and mazes – where recorded images and remixed music plays endlessly at coming in and out of tune, of fusing or separating. It was believed, at one time, that the reproductive machine would in the end liberate art from mimetic sin. Whereas, on the one hand, it relieved it of the servile tasks of copying and enabled it to assert its pure essence, on the other hand, it put its precision in the service of the reproduction of works. When the instruments of reproduction become instruments of creation and configure a space where the very distinction between the model and the copy, activity and passivity, is lost, it appears that mimesis is something entirely different from the archaic servitude of a not-yet-emancipated art; that it is every bit as much a political and social manner of dividing up – with the pos-

Acid house Music made up of rhythms and sounds originally generated by a Bassliner Roland TB 303, a synthesiser that modulates high-pitched sounds. The term has today been adopted into the language of electronic music and refers to works whose central motif is derived from the TB 303, particularly to pieces trendy in Chicago in the late 1980's, where the TB 303 was often associated with the rhythmic of the Roland TR-909.

Acid jazz A term which emerged in 1980's England to designate the revival of the jazz-funk of the 1960's and 70's. As a genre it coincided with the encounter between soul-jazz, hip-hop and vocal rhythm and blues. The DJ, Gilles Peterson, and his label, Talkin' Loud, were the major promoters behind it, producing records for Galliano, Brand New Heavies and Young Disciples, Incognito, etc.

Afrofuturism A trend within black popular music, whose paternity is generally attributed to Sun Ra. Transcending musical genres, Afrofuturism draws upon the feeling of alienation inherited from the slavery of American blacks, which it sublimates. In this conception, certain elements of Afro-American culture (such as the transcendence of spirituals) are re-imagined and transposed into a new cosmic and legendary perspective, where the alienated becomes extraterrestrial. The most representative artists of Afrofuturism include George Clinton and his various bands (Parliament, Funkadelic, etc.), Lee "Scratch" Perry, as well as Roni Size.

Ambient Atmosphere music which is characterised by effects of depth created by a recurrent and superimposed synthetic layering effect.

Analogical This term refers to the representation of data in a continuous, non-digital form.

Beat Tempo of the piece based on its most pared-down unity. By extension, in the realm of hip hop, the beat defines the music itself upon which the rapper places his or her voice.

Breakbeat Today the characteristic element of many dominant forms of dance music, breakbeat was born in the hip hop milieu of the 1970's, when such artists as Afrika Bambaataa or Soul Sonic Force revisited the funk of artists like James Brown, Curtis Mayfield and Isaac Hayes. Originally, breakbeat referred more precisely to that part of the record where the voice and instrumentation were downplayed to the advantage of syncopated rhythm. The precursor of sampling culture, the breakbeat cult was then practiced by DJ's, who, using two copies of the same record, would infinitely repeat one particular section of the pieces, switching back and forth from one turntable to the other. Still a preponderant component of hip hop, breakbeat is also to be found in genres as varied as jungle, dub, electronica and trip-hop.

Chill out A space in the midst of raves, reserved for quieter, more relaxing music such as ambient or so-called "down-tempo" music (dub, trip-hop, etc.)

Crossfader The potentiometer located on a DJ's mixing table, enabling him or her to move from one sound source to another in a single gesture.

Cut A technique used by DJ's, consisting of suddenly switching from one turntable to another, usually once the records have been synchronised.

Dance Generic term bringing together all types of music intended to get people dancing.

Deep house A style of house with a slower tempo, using synthetic layers and often voice. This type of music is particularly appreciated in New York.

sibilities of art – the spaces and times, the places and roles which define a community. Music, of course, is the concern of the Muses before being that of the instrumentalists. Which is as much as to say that before being an art, music is a form of sharing the sensitive, conferring space and meaning on the distribution of the bodies and images, voices and instruments in a given time and space – which makes music homologous of a certain disposition of the community. It is at once an idea of sharing and a place within its distribution.

The classical mimetic order is the organisation of this double place. Music would be once again in Aristotle's *Politics* what it had been for Plato: the generic name for the education which shapes noble souls and bodies, subjected to divine proportion. But the *Poetics* also assigns music a very determinate place in the hierarchy of elements in the tragic poem, which is at the same time the hierarchy of the arts: after the construction of the fable and the elaboration of the discourse, before the "spectacle" which is the least noble, most incidental element. The privilege of song over the displacement of bodies and over the shimmering of the visible – of the *Lied* over dance, as Adorno once again would argue in characterising the sonata form – is obviously a principle of internal sharing: the song separates its excellence from the ordinary nature of sound by linking up with discourse, known to be what opposes the political animal with the ordinary animals, endowed with the only voice that expresses pleasure or pain, and with those who only make noise with their body. He is thus in agreement with what places the poem at the summit of the arts: the superiority of the intrigue, that of causality constructed on the basis of empirical succession, that is, of action, subjected to fortune and misfortune, over life which is forever identical to itself, of noble subjects who act upon indistinct bodies, handlers of tools and procreators. In this framework, the relative privilege of music over spectacle quickly turns out to be the other face of a subjection. If music is song, and song is akin to speech, that also means that they are too close to music to serve as an *analogon*. The radical exteriority of the spatial makes it possible, conversely, to make the visible quality of painting into an analogy of the poem. The matrix couple of the poem that depicts and the painting that recounts, which commands in the representative regime the correspondence of the arts, thus accuses music of "mutism." It deports "pure" music that is, the mute music of instruments that are not subject to the meaning of speech and the rationality of history –

toward the only charms of sound that accompanies the pleasures of the easy life – dinner-table music or background music – to the extreme point where the art of the Muses is finally subdued: the attraction of a sensation, according to Kant, rather than the beauty of free play; a pleasure rather than a culture.³

The verdict, however, is given in the company of its opposite. *Tonkunst*, art with neither speech nor form, could very well be the superior art of mute interiority, for it is, the philosopher argues, the art best adapted to setting the intimate sense into motion. It is there that one encounters the first appearance of those ghosts which were to come take refuge in the grooves of records and that the sound of today's dubs causes to dance on the screens of dark rooms: *Glänzenden Geisterscheinung*, as the poet calls them: radiant appearances stemming, as if by magic, from the radical vulgarity of technical rigs to which the golden number was ultimately reduced: "an impoverished weave of relations of numbers, palpably presented (*handgreiflich dargestellt*) on perforated wood, on a rig (*Gestell*) of catgut strings and brass wires."⁴ Wackenroder provides a pithy expression of the upheaval, which, in the aesthetic age, conferred its privilege upon an art of sounds: the gap, the indetermination even, of the relationship between cause and effect, between the action of the workers' hand executing a combination of numbers and the "movement of the mind" leading to the immaterial and insignificant unfolding of sounds. The overthrow of the representative order has its primary principle there, in this non-relation of means and ends that destroys the representative paradigm of the intelligent form given to inert material. What collapses at the same time is the principle of correspondence between the poetic art of time and the pictorial art of space. The unrelated relation of the vulgarity of the catgut cords that are made to sing by the hand and the interior vibration of the mind give new measure to the relationship between the arts, to the space of the arts. This measure is that of the identity of opposites – consciousness and unconsciousness, the voluntary and the involuntary. It is that of the fusion founded on non-correspondence itself. The mixtures brought about by our multimedia arts are not the post-modern negation of Romanticism, but rather its accomplishment. The "ghost" story, in fact, has to do with the relationship between art and sounds, speech and space in the aesthetic age. It is the movement which brings about the disjointed correspondence between two mutisms – that of celestial music and that of the vulgar instruments

of production and reproduction – which, in the era of popular sovereignty and working-class emancipation, supplants the representative correspondence between poetry and painting.

Before being the dead, the "ghosts" that talk are mutes. The aesthetic revolution which puts down the representative order is the assertion of a form of speech which is more faithful than the language of words, inscribed in whatever this order considered mute: it may be the speech of the signs of history written upon visible things – from grooves in stone to the leprous mould on the walls and the wear of clothes or faces – or inscribed in the thickness of the language, the yellowing of papers and faded accounts. This particular mutism – whose grooves in the vinyl will one day compound the double power – speaks like a cipher of history. But there is the still more radical mutism of what neither speaks nor shows, from the great background that "speaks to the spirit" in the indecipherable language which is always there before all meaning and all history – the Kantian "thing in itself," transformed by Schopenhauer into the unconscious and desireless "will," of which music is for him the direct manifestation: no longer the representative, spatialised copy, but the thing itself, productive and destructive of all figurative form. But, it is above all there that one finds the origins of the "promotion" of music, its capacity in Nietzsche's time to re-engender the tragic poem, and, in our own era, the visual space of exhibitions or the theatrical space of the multimedia. It was doubtless Wagner who best summed up its aesthetic and political formula, at the cost of providing two contradictory versions: the happy union of contraries, between the poem – masculine and conscious, voluntary and talkative – and music – feminine, unconscious and mute redeemer of the poem's pride – at the time of the 1848 Revolution and the Feuerbachian philosophical revolution; pessimistic affirmation of the "will," mother of illusions and stretched toward its ultimate self-destruction, at the time of triumphant Schopenhauerism and counter-revolution. This double political figure of the musical drama still governs contemporary forms of the combination of the arts: working-class and *an-archic* power of speech and the mute instruments which undo the hierarchies constructed by the correspondence between speech and the visible; fusional power, where the contraries compete only to plunge together in the ecstasy of the originary or the spectacular indifference of the reasonless.

In both cases, what is asserted with all the predominance of the noise of a musical backdrop, is another idea of space: the representative to-

pography of the analogies between speech and the visible is opposed to the paradoxical space engendered by the art of sound vibration, that is, of de-spatialised materiality. It is not merely the "visions" that music evokes for the imagination that are set into space. It is the contradictory union between speech, stripped of sense-based form, and the art of sounds, stripped of its meaning. The art specific to the aesthetic age is neither abstract painting nor atonal music nor "intransitive" literature – which are the paradigms of modernity in all its glory, which today some have made into the pathetic sentinels of the "irrepresentable," disarming all thought and all will. It is rather the art of space which shows what cannot be seen and which can only be heard in discord: the contradictory union of speech which does not show and music which does not speak. The generic name of all properly aesthetic art is *staging*: the autonomous art of heteronymy, the constitution of a space able to put into the element of visibility what music says through not speaking and what speech keeps silent through talk. A Mallarméan art of the dancer-form-sign who, with her steps or the folds of her dress, writes the latent poem; an art of raising to the level of sensibility the speech of the mute, the "third person" that Maeterlinck found lurking behind Ibsen's dialogues, or of ordering the stage *composition* in keeping with the musical tone set by the phantoms in Shakespearean drama;⁵ Appia's scenography, aiming at making visible the unexpressed content of the Wagnerian musical drama by replacing the painted sets of Bayreuth with the play of spotlights, in order to divide up on the bare stage the sculpted forms of the characters and the geometry of the working scenery.⁶ The art of "staging," which, in a century, has slowly eaten away at the claims of "pure" painting, music or poetry, was born in an era when the "ghosts" – hitherto confined to the somewhat unreliable virtues of animal magnetism and table-turning – found their adequate technical medium: electricity, pure luminous energy, matter reduced to the point of immateriality apt to coincide with the immateriality of mute art and to construct a space for it.

When luminous projection gives a space of visibility to "mute" speech and music is also of course when reproductive devices are in the throes of development. The fact that these devices served for a time to capture the images or voices of the dead and that they are again being proposed for the same purpose at the beginning of the third millennium is not the key issue. The essential thing is in the new radicalisation that the devices of technical reproduction confer upon the constitutive principles

of aesthetic art. They do so in two principal forms: through revitalising the relations between active creation and passive reproduction and by the generalised availability of images and sounds.

Mechanical reproduction is known to have successively led to two analyses: firstly, the prophecy of the death of art, stricken by the copy industry; subsequently, and quite to the contrary, a verdict of emancipation, where industry was to restore to the creative imagination and artistic autonomy all of their prerogatives, thereby definitively relieving them of the tasks of mimetic reproduction. The two diagnostics both turned out to be equally erroneous because both relied upon the overly simple opposition between original creation and the servile reproduction that the Romantic revolution had already revoked, by asserting its will to rewrite ancient poems, by dealing with them both as material for new constructions of art and as forms for new contents. The concept of the "unique work" that Benjamin vainly sought to link to art's "cult-based" past emerged at the same time as the Romantic identification of the creator with the traveller, collector or archaeologist, who recollects, reinterprets and recreates art's past. And, in fact, it developed *along with* the new forms of multiplication: with the promotion of the interpreter – that is, the instrumentalist, director, conductor, critic – and the technical forms of reproduction. From Romantic *fragmentation* and the Schlegelian idea of the "poem of the poem" to the contemporary practices of *deejaying*, sampling and remixing, which multiply the "unique copies" created by the artisans of reproduction, via the development of the industry that deals with conserving heritage and obliges its constant broadening and "rejuvenation," it is possible to trace an empirically erratic but theoretically coherent line.

The upheaval in the relations between consciousness and unconsciousness, the old and the new, creation and reproduction, is also the scrambling of the opposition between art and non-art itself. Still contrary to the image of a Romantic modernity – alleged to have separated the autonomy of art from forms of life – the art of the aesthetic age has incessantly identified itself with its opposite. But this identification itself takes two forms. There is, on the one hand, the Dionysian roar of music which claims for itself the Apollonian shimmering of images. This roar is also the shift from an art of notes to an art of sounds, from the art of sound to the art of noises and from the latter to the boundless and anonymous murmur of life and/or machines; the passage from the kingdom of songbirds to that

of insects, experts in stridulating, scratching and scraping, as Deleuze and Guattari would say.⁷ Let us add that the insect is an eclectic animal. It can be serial or spectral, concrete or virtual. It can be in harmony with a tortured violin as much as with a misused electrical device, a synthesiser-produced sound, an electronic beep, the crackling of the loudspeaker or a recorded birdsong. It is the true interchangeability of these modes of production of "sound particles." Its artistic promotion is thus in agreement with the other form of identification of art and non-art: the infinite multiplication of images, the great metamorphism which incessantly reprocesses usable things, commodities and the disaffected icons of business, to make "images," that is, something henceforth entirely different from copies: metamorphic elements, at once bearers of the signs of history and of the affect of the disaffected, susceptible to entering into all the combinations where expression can be given either to the meaning of a common destiny or the mute splendour of what is useless, reasonless. It is well-known how the surrealist poetics of collage (taking these terms in their broadest sense, which goes beyond a mere school and technical procedure) played on this metamorphicity, which would transform any commonplace thing into a dream image and art material, but also any image of art into a profane and profanable commodity. The speed with which useful things become obsolescent and the speed with which art things are reproduced joined forces to infinitely spread the domain of this metamorphism. A certain artistic, anthropological or historical fundamentalism was only too happy to make music into the standard of resistance against this generalised metamorphicity of images, which means, with the erasure of the borders between the arts, the increasing indiscernability between art and non-art. The spiritism which dominates today in the new marriage of music and space, of art and technique, expresses in its own way this late "becoming-image," this "becoming-surrealist" of music. It is where the vast poem of yesterday's music and sounds runs up against that of the needle that scratches and the amplifier that crackles, the synthesiser that creates and the computer that invents, that the fusion of the two contradictory powers comes about: that of the grand Schopenhauerian background – indistinct as it is mute – of the "ocean of sound,"⁸ whence all images emerge like spectres, only to disappear once again; and that of the Schlegelian "poem of the poem" – of metamorphicity, collage and infinite recreation produced on the basis of the great storehouse of images, ultimately identical to the life of the storehouse itself.

The art of the projection of sounds and images, which equalises media from different eras and identifies the improvisation of performance with the making available of archives, offers itself then as eminently appropriate for configuring this space of installations which materialises the union of artistic decision with the raw factuality under the sign of living memory. To situate these small theatres of memory, which contemporary-art exhibitions are inclined to become, one can indefinitely construct contradictory scenographies – mystical oceans of sound, blessed in the name of Bachelard, Stockhausen or Sun Ra, or the storefront windows of shopping malls, stricken by the maledictions of Adorno or Guy Debord. But for a long time now, these topographies have become confused, the romantic sirens have learned to take all figures and to accommodate themselves in all places: ships' sirens (Varèse), old-fashioned umbrellas in the Opera passageway (Aragon) or stock-exchange prices (Broodthaers). Unanimity of modern noise and life, plunged into the perennially-renewed ocean of dream images, critical atlas of signs and of misappropriated icons: these three great figures of the identification of art and non-art have not finished offering themselves to, and the same time of eluding, judgments that deplore the spectacle-king or exalt the ultimate figure of its radical critique. There is always the danger, as Deleuze and Guattari pointed out, of confusing cosmic machines and machines of reproduction. It may well be that they all have the same genealogy and that what clashes in the background of the great proclamation is above all the different ways of archiving, narrativising and theatralising the archive: of slowing down or speeding up the metamorphoses of use objects and art documents into the material of memory and into forms of its theatralisation. The politics of art which redistributes the forms and time, the images and the signs of common experience will always remain ultimately undecidable.

Jacques Rancière

Notes

1. *Republic*, III, 397 a-b.
2. See the *Philosophy of Modern Music*, trans. Anne G. Mitchell and Wesley V. Blomster (New York: Seabury Press, 1973), in particular the second part, entitled "Stravinsky or Regression."
3. The problematic nature of the art of music is dealt with in sections 14 and 53 of the *Critique of Judgment*.
4. Wilhelm Heinrich Wackenroder, *Confessions and Fantasies*, trans. Mary Hurst Schubert (University Park: Pennsylvania State University Press, 1971).
5. See Mallarmé, "Ballets" and "Autre étude de danse: les fonds dans le ballet," in *Oeuvres complètes* (Paris: Gallimard, 1945), pp. 303-09; Maeterlinck, "Le tragique quotidien" in *Le Trésor des humbles*, (Brussels: Labor, 1986), pp. 99-110; and Edward Gordon Craig, "The ghosts in the tragedies of Shakespeare" in *On the Art of the Theatre* (London: Heinemann, 1980), pp. 264-80.
6. Adolphe Appia, "Musique et mise en scène", in *Oeuvres complètes* (Lausanne: L'Age d'homme, 1986), vol. 2, pp. 43-207.
7. Gilles Deleuze and Félix Guattari, *A Thousand Plateaux*, trans. B. Massumi (Minneapolis, Minnesota: University of Minnesota, 1993).
8. See David Toop, *Ocean of Sound, Aether Talk, Ambient Sound and Imaginary Worlds* (London: Serpents Tail, 1995).

DIGITAL ELECTRONIC MUSIC: BETWEEN POP AND PURE MEDIALITY

PARADOXICAL STRATEGIES FOR A REFUSAL OF SEMANTICS

DIEDRICH DIEDERICHSEN

Since around 1992 or 1993, developments in the still relatively young techno culture led to the introduction of various new terms. The distinction between house and techno, which was supposed to be constantly renewed over the course of time, was no longer adequate to conceptually master the numerous changes (including those at the level of marketing). In particular, one could no longer overlook the fact that techno had expanded from purely functional dance music based on repetitive beats to a new (pop-) musical paradigm, which had affected and altered all modes of reception among young and sub-cultural listeners. This music, produced on the computer and often rendered publishable at home and without a studio, was mostly unburdened by vocals and text while no longer always structured by beats. It therefore demanded new terms and names.

Then, as a term like "intelligent techno" appeared in connection with compilations such as the *Artificial Intelligence* series, it seemed to present a clear case of the latest edition of a familiar script from the history of pop music: an initially egalitarian music and lifestyle movement is followed by a phase of expansive "de-individualisation" or "commercialisation." Eventually the middle-class participants long to disassociate themselves from this development in order to take on another privileged status, namely, that of a "true avant-garde" or even "intelligent" techno music. In the history of punk music this moment is found in the

split between new wave and punk; in hippie music it was the appearance of progressive rock that activated comparable distinctions. Following an initial phase of a relatively class-neutral cultural movement – after adherence to the movement is no longer solely determined culturally, but has also become marketable – an elite moment takes place in which differences and routes of access are re-established through the classic means of artistic differentiation. While one cannot reduce the relevant musical cultures to this function in the battle over distinction, it cannot be overlooked.

Fortunately the term “intelligent techno” didn’t catch on. Instead, since around 1993 or 1994 people have talked about “electronic music,” at least in the German language arena. In a corresponding operation in English, especially in the USA, the term “electronica” took over somewhat later. Interestingly, many of the authors and musicians who helped to establish this term always insisted on using it to re-describe a unity and a shared history of all musical styles emerging from techno and house. They also spoke out against a separation between “functional” and “artistic” uses of digital vocabulary. Thus, within the scene there was an awareness of a cultural class war from above, and appropriate measures, or at least appeals, against such a use of terminology were taken.

Over time another connotation of the new name began to weigh heavily, that of historical electronic music. This refers less to the totality of electronic sound production before techno and after the Trautonium and Theremin than to the post-war centres of electronic music that developed out of serial composition with an artistic, avant-garde, high-cultural self-awareness: from the Cologne-based Studio für neue Musik to GRM in Paris. On the one hand, such a connection was made by musicians themselves, who publicly declared their interest in this other electronic music; on the other, journalists speculated in articles on Cologne about a putative *genius loci*: for example, a collective spirit including Stockhausen and Eimert at one end and Mike Ink and Mouse on Mars at the other.

On a musical level, this connection is highly misleading. In contrast to the electronic music of the 50’s and 60’s, music emerging from techno was concerned with an electronic and digital *administration* of sounds of all possible origins. Electronic music that followed the “classic” output during the first decades of exclusively analogue production dealt with electronic sound *creation*. The main emphasis here lies in the nature of the sounds and their components, in the organisation of found or vari-

ously created sounds. The old electronic music sought to generate novel sounds and to possess new and more refined production parameters with which to determine music more precisely. The new music treats the administration of all kinds of sounds as digital records assisted by music programmes. And often the artistic philosophy (or its weakness) consists of allowing the artist/author to step back behind the programme and give up his ability to control it.

One doesn’t need to say much about the mistaken belief in a direct line of tradition between both versions of electronic music. Ultimately, the enthusiasm of today’s digital-electronic musicians for the old electronic music brought about numerous interesting results, whose quality isn’t diminished by historical misunderstandings and conceptual confusion among journalists and young musicians. Still, the equality of terms plays an important role in discussions about how current digital-electronic music sees itself. It also applies to questions about the possible dimensions of events that document the music’s current expansion.

An essential effect of the term and the elevated tone accompanying the reverently pronounced description “electronic music” arises from the fact that the relevant authors and producers increasingly do not situate themselves in the continuum of the various pop- and sub-cultural musical forms – for example, from blues to industrial, from reggae to hardcore punk, from psychedelic to free improvisation – but rather in a history of avant-garde composition. Indeed, there are actually good reasons from a production-aesthetic standpoint for such a self-assessment. The conceptual methods of working with computer programmes more closely resemble those of a composing artist than a conventional pop musician in the studio. The cultural environment surrounding many labels and record stores, and in magazines like *The Wire*, more often derives from the current and earlier avant-gardes than the pop music of the present; this context is in many cases at least as important as that of the earlier pop music in the beginning of techno and house. Above all, however, the alleged continuity targets an electronic music from Stockhausen to Mouse on Mars in order to oppose the old interpretive parameters of pop with another that is determined both by technological theory and media theory – and not especially in terms of music theory. In all other attempts to compare “pop music” and “serious music,” pop music was until now defeated by the defensive measures of music theory (claims for complexity, score- and composition-centring). First and foremost, electronic music

links itself with a tradition of medially and technically legitimate advanced art and thus suggests the connection to an art legitimated by social, external, and semantic determinations – in typical pop-music fashion.

Of course there are many producers who still often have marked ties to a sub-cultural sense of self, occasionally even accompanied by political ideas. But their semantics are only connected in exceptional cases (like with Ultra-Red) with musical decisions. If there is a political self-consciousness, it generally has to do with one's own relation to the mediality of music, not to its "material" – in other words, not to a legitimate and coherently conceived totality of means. And it is also only through mediality and interface relations that commonalities emerge. In the light of these developments, one can ask what this new digital electronic music *is* in the most definitive sense. Such an interest in definitions should not be misunderstood as a critical attempt by the discursive partners of music to establish order. Rather, it is an explicit understanding of long implicitly maintained definitions with sometimes far-reaching consequences. Is it, or does it conceive of itself implicitly as, a media praxis, pop music, or music in the aftermath of the traditional avant-garde? And in contrast to which earlier pop music would it be the foremost media praxis? Where does it most clearly belong and how can one combine reception and production aesthetics with intentions, uses, and cultural environments?

A typical point of argument from the camp of today's digital-music producers is based precisely on media theory. This fixes in place all significant differences regarding the digital status of (almost) all currently available sounds and defines one's own production as the one that – even in a somewhat "critical" sense – displays digitality, makes its special effects audible, and, in contrast to other music, does not just use digital sound manipulation to optimise already known musical practices. However, this argument operates – and this is perhaps the most decisive thing – independently of a pop/classic distinction. It legitimates the "new," "individual," digital music, not in the usual pop-music manner of tribalist, scene-specific, populist, or political arguments, but with a media-technical approach, as "new." This itself is relatively new, even if there are precursors.

Already in the 60's – e.g., with John Sinclair in his treatise *Guitar Army* – the electronic amplification and resulting distortion was described as one general criterion of new music as it related to the specific functions of pop music. It was certainly closely connected with the typical political and tribal arguments based on newness. Digital newness is based

on a media theory that explains the ultimate digital quality of all cultural mediums and archives as a deep-seated cultural shift, before which all others shrink to epiphenomena. At first glance this may not be just a reductive position that privileges the relatively arbitrary (or interfaced with Heidegger) *single* perspective (that of mediality) over all other components of a musical product (not only semantically). Nevertheless, the inclination toward a personal association with such a totally media-driven perspective, the wish to understand oneself completely in terms of the connective digital emergence, is widespread. Many representatives of the digital electronic music we're discussing here have such a desire to separate themselves from other pop-music practices.

My assumption, however, would be that this very discourse has succeeded an earlier paradoxical discourse that now belongs especially to pop music. Its true desire is the exclusion of any semantics. The increase in pure functionality (techno) was the strictly repetitive asemantics of loops and minimalistic twists, the trend toward an empty world perfectly arranged out of restrained sounds and graphics that no longer make a semantic offering, no longer open up uncool interpretive interfaces. Yet exactly this form of communication thoroughly relates to an advanced, insulated variation on the old outsider communication model of subcultures: "I want you to understand that there is nothing to understand (you all don't understand me anyway)." The corresponding insider communication model finds itself in a community of jointly incommunicable particularities and enjoys it. In this way the effort again brought about a semantics of the desired communication of non-communicability through the retreat into a music only committed to its own mediality – as a strategy of the asemantic. This was a paradoxical development for the once specific, concrete examples of such musical applications.

An opposing argument rests on the term "sonic fiction", launched by Kodwo Eshun. It maintains that, specifically in the realm of universal availability, electronic sounds can thoroughly communicate something and indeed do so. Instances of the term are mostly related to the specific semantics of the environment, so that it doesn't merely consist of functionalist graphics – accompanying texts, names of projects and people, origin of samples – but most often simply associative interpretations supported by certain sounds. Other than the attempt to quickly retreat from semantically determined pop music into a meaning-free world of pure designs or pure mediality, this discourse attempts to outdo pop through a

new directness. It presents a density of musical semantics that, moreover, is also protected like a secret society and defends itself against obvious adaptation from outside insofar as its musical core has meaning, but meaning that is totally nonverbal.

Upon closer inspection, we find parallels with such conceptions of sound in many forms of pop music. A general agreement over the greater semantic terrain of producers and receivers allows the sound to be steered in a purely musical direction, without the music turning ambivalent – like so-called pure music. In the world of heavy metal the listener also knows which fantasy culture he is stimulated to imagine when he hears a certain type of guitar solo. He then “envisions,” as a fan recently confirmed for me, “scenes from non-existent knight films.” This is also exactly the way in which sonic fiction functions in connection with Eshun and others. Strictly speaking, it is not a *fiction* in a narrative sense, but rather a non- or polylinear *fantasy* – though this term could sound too much like hippie culture.

A third approach describes digital-electronic pop music as primarily intrinsic. Different from all other (pop-) music styles, it always establishes the internal references (the beat is less than a second) so strongly in terms of external references (where I have already heard the sound), that it radically refers the receivers to their immediate present; this distinguishes it sharply from pop, if it doesn't in fact present its absolute opposite. It therefore only opens up references to inner worlds, microstructures, and the interior of the social context. Doubtlessly, such a description allows itself to be combined harmoniously with the paradoxical mode of communication of media-based asemantics. Such a combination might correspond to the mainly implicit sense of self among most producers – from techno to the diverse contemporary minimalistic successors. Sonic fictions are more evident in drum'n'bass.

Naturally, listening to repetitive music is not entirely internal. Beats don't just appear repeatedly, but in specific forms of repetition, in patterns that at the same time become known in a particular sound design. Listeners don't just internally recognise beats in reference to the last beat, which would simply be the radical maximum of techno. Rather, as a rule they recognise patterns and connect them, if not exactly with meanings in the strict sense, then certainly with actual experiences – sound patterns combine themselves with these meanings as symbols do with specific meanings. In addition, the establishment of meaning through open

patterns and grooves, even if only private and contingent at first, offers more possibilities and eventual routines. It then connects these points more purposefully with meanings that naturally originate in the social environment of digital-electronic music. In this sense it is pop music. Yet one might need a broader definition of pop music than is used in numerous countries. In many languages pop music is only about chart music. In my terminology, which is directed toward its use especially in German, pop is any kind of music emerging from industrial music production while still having developed independently. It never simply consists of music, but always also other accompanying levels of the visual and the textual. Thus one needs a term for pop music that distinguishes all musical forms, which consist simultaneously of different denotative, signifying, classically ambivalent and open symbolic systems, from those that are primarily ambivalent and at most receive a second level through a text. With pop music, these tasks are always already mingled, the music itself always simultaneously symbolic and not symbolic.

As a rule, digital-electronic music doesn't clarify what its specific communicative and artistic material consists of. It dreams an ideological dream of self-referential mediality and non-meaning, or is complemented by sectarian secret writing. But even this is typically pop: to dream an ideological dream without being hindered by it; indeed, to first become productive through this dream, possibly in a much better sense. It reaches the enviable condition of simultaneously possessing exact clarity without leeway and great openness, which can hardly be planned or calculated. One can only reach this through the double negation of a misstep into a false dream.

Diedrich Diederichsen

APPROPRIATIONS: DEATHS OF THE AUTHOR IN ELECTRONIC MUSIC

ELIE DURING

The discourses surrounding the various forms of electronic music oscillate between two extremes: futurology and ethnography. It is the music of machines, whose echoes are lost in the digital network, but also the polyrhythmics of great Africa, which live on in the pulsing beat of jungle or drum'n'bass. Techno was quick to identify its founding myths and its heroes: it is said to have been born in Detroit, in the metallic theatre of the assembly lines of the Ford factories. It was "George Clinton and Kraftwerk stuck in an elevator," to use the brilliant formula coined by Derrick May, who thereby placed himself and his music into the colourful lineage of Afrofuturism and German electropop. Techno now has its ideologues: it is presented as the new figure of digital universality, the sound of "cyberculture".¹ As far as the ethnographers and the surveyors of the everyday are concerned, when it is not purely and simply explained away with worn-out commonplaces of partying, expenditure and excess, it appears as a paradoxical avatar of the popular music of oral tradition, ignorant of author's royalties and the copyright economy.² Thus, there seem to be two symmetrical ways of missing out on the mediations specific to the various forms of electronic music, as well as two ways of turning them into orphans: immersing the DJ into the social flux, by hearing in the general recycling of techno sounds the melody of subjective patterns, the fusion of bodies in the rave; or, conversely, exaggerating the importance of technology (digital network, sound prostheses) to the extent of denying the DJ the power to make use of them in any singular way, as if he were but the mere operator in a network which goes beyond him, negating him a second time as an author. On the one hand, music as

an ideal object of a common desire – that of the entranced faithful of a “universal rave;” on the other, music disseminated in the threads of the network, inseparable from the supports and techniques which convey and transform it, and yet too volatile for it to fix itself onto anything but temporary interfaces (MP3, samples, real-time broadcasting, etc.) Between these extremities, there stabilises the portrait of the DJ as a futurist *griot*, able to turn the machine to his own ends in order to perpetuate a mode of appropriation and recycling that is foreign to the norms of market exchange.

Deaths of the author

Techno gives in any case a second lease on life to an already well-seasoned motif: the death of the “author.” The technique of sampling could be seen as the ultimate figure, conferring on practices of musical re-appropriation and misappropriation the effectiveness and ease of digital technology. The rule of borrowing and recycling would thus endorse, if this were necessary, the end of the still avant-gardist myth of originality and the decline of the ideology of the author’s rights. And whereas the anonymous or collective figure of the craftsman-musician (doubled in discourses by that of the performance artist or artist-operator), the generalisation of the home studio has made it possible for everyone to equip himself with the necessary tools for creation: there is no longer any need to be an artist to be a creator; it is the domain of the amateur.³ This scrambling in the division of roles between production and consumption, creation and reception, at the same time renders fragile two modes of traditional totalisation in the artistic field: in intention, the author, synonym of the closure of the work’s meaning;⁴ in extension, the work itself, which loses its physical and temporal limits – fantasy rendered to the flux of a universal sound material.

“Techno” thus functions like an ideological category: erected as a paradigm of what serves to define it (the network), there is nothing that could challenge its use. But before proclaiming the death of the author, one must be sure to have tried, as Foucault says, to “grasp the points of insertion, the modes of functioning and the dependencies of the subject”.⁵ It is due to the effect of a romanticism as inconsistent as that which upholds the cult of genius that one imagines a culture where the works circulate without any system of constraints, without any effect of authorship.⁶

Better than the critique of fetishes and the rites of authorship (the consecration of the artist, the other side of the consolidation of the field of art),⁷ better than the invocation of the operator as the destinal figure of the contemporary artist (in his different variants of performance artist, installation artist, programmer, etc.), the game of the “author function,” revealed by the announcement of the disappearance of the author, invites us to envisage the latter as an interchanger of discourses and practices, who manages to make himself forgotten by having these discourses and practice deal sometimes with forms of social ties and at other times with objects: sounds and moral rights, signed works, collective performances, and so on. “Techno” thus refers less to a category for the bins at the record shop than the name of a device, which, from the rave to the home studio, causes the permutation of the forms of mediation which link human beings through objects, and mobilise objects through human links.⁸

The techno craftsman

The do-it-yourself spirit has obviously conferred a certain credibility to the death-of-the-author theme. Concurring with the inspiration of the punk movement, it encourages creative self-management and *bricolage*,⁹ abandoning at the same time the idea of *ex nihilo* creation. As the musicians of KLF¹⁰ wrote in their guidebook for would-be DJ’s: “There is no hit that was not put together on the basis of other hits ... Aiming for originality no longer has any sense.”¹¹ Disco had already suggested the idea of a form of music without musicians, concerts or tours, without real stars or T-shirts with their pictures on them: a form of music based upon pure consumption (in clubs), stripped of any aesthetic finality, a perfect example of the “discomorphosis” of music. But the different forms of techno music radicalise this phenomenon: the voice disappears and the musicians turn from the stage to strategies of disappearance through erasure or proliferation (anonymity, multiple identities and pseudonymity).¹²

One may of course suspect that many of these practices merely extend the romantic figure of the genius in a different form. But anonymity is not some posture or coquetry of the author when the latter disappears completely behind his sound system, or when he makes the label into his emblem. *M1, M2, M3* – the albums distributed by Basic Channel under the label M (designating a trademark or product range as much as the musi-

cian Moritz von Oswald, alias Maurizio) – always manage to sell tens of thousands of copies without any advertising or promotional activities, with neither concerts nor press coverage.

If the DJ is a “craftsman of the cut,”¹³ the electronic musician participates to an ever greater extent in a “craft-based industrialisation of the digital world,” which seems “to generate its own needs, its own rhythm, its own communications circuits;”¹⁴ an economy of niches, made up of multiple pressings in small quantities and the transfer of MP3 files. However, this sort of artisanal system is not so much the name of an industrial or economic system as of a particular regime of authorship. One might say that, today, it is the independent labels that often fulfil the author function better than the artists themselves. The artist-author was father and owner of his work; today, it is the workshops that guarantee the product.

The figure of the techno craftsman finds, moreover, further confirmation in the curiously anachronistic character often assumed by the hagiographies of DJ's and electronic musicians. One cannot but be struck by the particular interest which is shown for the gestures, figures, aesthetic innovations based upon the use (and often the misuse) of the technological medium, as well as by the role played by chance and ingenuity: the Jamaican King Tubby's invention of dubbing, Francis Grasso's cross-fading from one record to another, DJ Kool Herc's breakbeat, Grandmaster Flash's punch-phasing, back-spinning and scratching, DJ Pierre, Herb and Spanky's “acid” sound, and so on.¹⁵ The conventions which dominate in this genre of literature are much closer to those of the lives of artists of the pre-modern era, retracing the invention of techniques and styles, than to the life-of-the-author genre. Here “biographism” is entirely subordinated to the concern for bringing out the way in which the artist fits himself into a technical framework by working with some material or medium – his art, therefore, more than his genius. As in the thought of Pliny, Vasari and even Winckelmann, anecdotes cannot be separated from a discourse on the origins of art and its techniques. More than the works themselves, it is the operations, the ways of doing – in short, the craft – which define the operator. And the work is less the product of the vision or the designs of the artist than the prolongation of his gestures.

Kodwo Eshun expressed the same idea when he described the sound of electronic music in terms of a “sensorial technology.”¹⁶ Sun Ra used to say, “I am an instrument.”¹⁷ Kraftwerk: “We are neither artists nor musicians.

Detroit bass A mutant form of classic Detroit techno blended with the thunderous sound of Miami bass. There are currently two tendencies within Detroit bass: the first is most influenced by the Miami tradition, as embodied by such DJ's as Godfather, Big Daddy Rick and DJ Assault, and such labels as Twilight 76 and Data Bass. The second corresponds to the group of artists grouped around the Direct Beat label (Aux 88, DJ D'ijal and others).

Digital In digital recording, sounds are translated into binary codes – like any other graphic, video or textual information – and can thus be manipulated by a computer or a sampler.

DJ The acronym for “disc-jockey”, the person in charge of the turntables. His or her role involves putting together a set by using techniques of mix, cut, and in some cases scratch.

Drum'n'bass Another name for the British jungle movement, referring directly to the basic sounds (bass drum, treble drum, cymbals and bass) of this genre of electronic music. The word emerged at a time when the word “jungle” was beginning to take on exclusive connotations of being a form of black music for a black audience. It was thus initially for commercial reasons that the more “neutral” name “drum'n'bass” was devised (in order to broaden the genre's potential clientele), though it is at the same time undeniable that the emergence of the term coincided with a certain phase of development of this form of music's sub-genres. Today, drum'n'bass can be subdivided into a number of tendencies with more or less esoteric names: deep (e.g. LTJ Bukem), jazzstep (Peshay), techstep (Renegade Hardware label), hardstep (Metalheadz label), jump up (Aphrodite), neurofunk (Ed Rush & Optical), darkcore (Panacea), ragga jungle (Congo Natty), “pure” drum'n'bass (V Recordings label). See also JUNGLE.

Dub The music stemming from the reggae which came out in the 1970's, when the Jamaican producers of the time began to explore the possibilities offered by the recording studio to create instrumental versions intended for sound systems. Based on the uses of effects (reverb, delay and so on), dub pieces sought a new relationship to space and time, through a thickening of the sound material. Dub, created by such artists as King Tubby, Lee "Scratch" Perry, Joe Gibbs and Mikey Dread, is an important precursor of the techniques and sounds employed by many artists today, inasmuch as it was the first music to have considered the studio as a full-fledged instrument. In the course of the 1980's, dub exerted a considerable influence in Europe, giving birth to new schools – referred to as electro-dub and növö dub – especially in England and Germany.

Dubplate The "test" pressing of a piece on vinyl, as a one-off or in a very limited edition. Stemming from Jamaican reggae, the point of this practice was to cut exclusive pieces for a sound system, over which its operator would invite singers and DJ's to praise his talents. The technique was subsequently exploited in other musical genres, such as hip hop and jungle. The dubplate (also known as the "acetate") is characterised by a short lifetime, limited to some one hundred plays.

Electro acoustic The term referring to classic contemporary compositions, combining the electronic with the acoustic (traditional instruments). Historically, the term made it possible to bring together under a single name the two distinct currents of concrete music (attached to the use of natural recorded sounds) and electronic music (based at the time on the sounds produced by frequency generators).

Electronica An eclectic genre bringing together different expressions at the limits of trip-hop, dub, electro and ambient, characterised by sophisticated sound research (which, for a time, led it to being qualified as "intelligent" electronic music), often incorporating sequences constructed on the basis of "parasitical" sounds as well as a certain influence of minimalism. Pole and Pan Sonic are amongst the artists of the genre.

We are workers."¹⁸ And Juan Atkins, who is inclined to simply oppose the "art" of those who fiddle with drum machines to genuine "music:"¹⁹ "I want my music to sound like a dialogue between computers... I want it to sound as if it had been made by a technician. That's what I am: a technician endowed with human feeling."²⁰ Today the figure of the techno craftsman – inverting the terms of the moral relationship as defined by Liszt between the artist sacrificed to his art and the craftsman busy with "little everyday peddling" and the "petty satisfaction of pride" –²¹ finds its purest achievement in the anonymous Berlin musicians, who, hidden behind austere labels (like M), distil minimalist products of quality, esteemed by several thousands of unconditional fans.

The craft regime of authorship

This new regime of authorship is not that of today's popular music (rock, pop, rhythm and blues, and so on), nor that of the great highbrow Western tradition which extends into the present by way of serial and post-serial music. Only a mythological vision (founded, moreover, on the exclusive consideration of hip-hop) can still seek to link authorship with the modes of oral transmission of traditional music. Of course, one does find in it the general effects of authorship: it creates and redistributes value. But contrary to the authorship of the author (composer or performer), the craftsman's authorship does not function like a principle of rarefaction (limiting the circulation of cultural goods, and the proliferation of meaning);²² on the contrary, it seems to authorise and to beckon unbounded reproduction and transformation. It is above all characterised by a certain ethic of musical work, manifested by increased control over the whole production line. This ethic itself imposes its norms on the listener; not by guaranteeing any meaning or privileged interpretation of its content and forms, but by authorising certain uses, certain types of listening. The music's authorship, as will be seen, can be measured against the spread of its power to be listened to as it wants to be.

It should perhaps be made clear that the disappearance of the author in no way entails that of the creator. The entire history of the different forms of electronic music, derived from disco, can be understood as a progressive consolidation of the position of the producer-creator on the basis of that of the performance artist, the use of magnetic tapes and the circulation of cassette recordings (mix tapes) representing a decisive

mediation in this respect. As much as an electronic and futurist vision of dance music, techno was able to introduce in this regard a demand for pure creation.²³

Cut & paste: modern and postmodern

However, in referring to the death of the author, one generally means something more – an event which radically affects the very meaning of the work, and above all, the very possibility of producing a “work.” It is here that the critical discourse gets carried away, and, as Wittgenstein would say, “goes on holiday.”

Sound collage was not born with sampling.²⁴ Its idea was virtually contained within the work of cut-outs and re-assembly which DJ's have been doing since the creation of remix; and quotation and disguised borrowing are gestures as old as music itself.²⁵ But thanks to the advent of home studios, a musician can today set about producing a work right in his own living room, by working directly with other recordings.

It is natural, at first, to subject sampling to a “modernist” paradigm of interpretation. Whereas hip-hop, for instance, “replays the forms of black American music systematically and almost diagrammatically,”²⁶ it can also be seen as a form of avant-gardist collage, where critical commentary (distanced or parodying quotation) mixes with a certain anti-representative violence (cut, crossfading, scratch). Thus in Afrika Bambaataa's rough *Planet Rock*, it is the rupture effect of collage – its discontinuous, non-organic character – which is most manifest. Similarly in Coldcut's work, or in hyperbolic fashion amongst such “turntablists” as DJ Q-Bert, who alternates the fluidity of mixes and dissonant juxtapositions.²⁷ With Warhol in mind, one might also say that the sample participates in a form of modern heroism (mechanical neutrality of reproduction: series, machines, loops, and so on). Or, following Greenberg, that it signals the discovery of the recording as music's specific medium: for here, indeed, are sound works that directly draw their material from other recordings, or from the sound medium itself, just as painting measures itself against the absolute flatness of the canvas (Pole works with breath and the scratchiness of the vinyl; Christian Marclay uses dirty sound and, in a theatrical mode, records made of compressed cookies or grated cheese).²⁸

But the “postmodern” paradigm is perhaps more tempting. The term itself is of little importance once it makes it possible to distinguish a rhe-

torical strategy. The latter is directly linked to the issue of authorship in building upon a systematic inversion of the copyright ideology: dissolution of the romantic idea of genius and originality (music is always made from other music), triumph of re-appropriation, recycling and the transfiguration of the old, proliferation of simulacra, an open, infinite process.²⁹ Possibly, following Certeau, inasmuch as we are “tenants of the culture,” we are all DJ's – that is, sign operators.

Procedures and interpretations

In the first case, the voluntaristic aspect of the practice is emphasised, along with the formal organisation imposed on the appropriated material. In the second case, the gesture of borrowing, cutting, transporting is absolutised; the general form is extracted in order to everywhere displace the trace of the absent origin, the empty form of flaunted authorship. The essential thing is that, under both these interpretations, sampling is brought back to the general form of its technique: the modern paradigm is primarily concerned with the moment of collage-montage (re-appropriation, mix), and the postmodern paradigm with cut-up and collage (misappropriation, cut). These interpretations are cohesive, for each one explains the other very well.³⁰ Moreover, they share a similar presupposition. Indeed, in all cases, one imagines that it is possible to deduce the aesthetic and political consequences from a simple technical device, sparing oneself the precise analysis of its mode of operation; and, worse still, supposes that this deduction can be made directly and immediately, independently of the practices and uses in which it is caught up. But as long as one is looking for the pure form of a device, examples can always be found to shore up one or other of these two theses, and often both at once.

Following this dialectic, one could also raise, in no less abstract terms, the question of authorship, either to reinforce it or to negate it. And that is where the postmodern discourse reaches its limits, unwittingly reduplicating the legal logic of attribution and assignation. Sherrie Levine's photographs of photographs (for instance the series based on Edward Weston's nudes) merely offer a sententious version of the demonstration given by Duchamp, when, after having painted a moustache and goatee on the Mona Lisa, presented it a second time “shaven.” The artist's authorship is nowhere so clearly seen as when the re-appropriation marks

a minimal gap with regard to the original. Thus the very radicality of the gesture of re-appropriation seems to confirm the author function from the point of view of the sampler: "one can quote, sample or steal as much as one wants, in the end it is always the same old subjects that undertake their modernisation. But looking at the technique and the conditions of production do not spare aesthetics from having to believe in the author."³¹

Re-appropriation of time

To restore operative meaning to the hypothesis of the death of the author, we must return to the most elementary gestures of musical appropriation, and the mediating function played by the DJ in the context of the performance, whose effects are still to be felt in most forms of techno, including those which are only made to be listened to.

The DJ did not say to himself one day that he was going to abolish the notion of the original work and make the author disappear. The history of the constitution of his authorship (the passage from the DJ-performer, initially a mere sound technician, to the DJ-composer followed by the DJ-artist), which is also the history of the actions and procedures of mixing, has to be understood on the basis of a singular practice, originally linked to the demands of dance. Its principle is simple: the idea is to make the music last, to play it uninterruptedly all night long. The re-appropriation of the record as a mass consumer product in the framework of performance first of all meant the possibility of prolonging a piece on both sides of a 45, by making use of two different versions. Listening alternately or simultaneously to side A and side B gave rise to a new experience: extending of a three- or four-minute piece into one that was twenty, thirty or more minutes long.³² Before dismembering music with dub techniques, the idea was thus to fold music back on itself and to stretch it out to allow the rhythm to continue for as long as possible. All the gestures fall into place from then on, guided by a rhythmic constraint from which only the later derivations of techno would manage to escape.

The DJ is also defined, as is well known, by his ability to link and to mix records in the right order, without losing the rhythm. His art asserts itself between two types of phasing, in the linking itself and the "tiling" of the pieces (or the tracks or versions of one and the same piece). This particularity immediately invites two remarks: the DJ does not produce

a work, but draws upon a collection of works; he perceives this collection as a reserve or a building material: nor, therefore, does he make use of *works*.

From work to gesture

The procedure consisting of disassembling or sampling a dozen or so pieces (and often many more) in the course of a mix is only perceived as a profanation or a particularly radical gesture because it is felt to constitute an infringement of works. Thus, it is imagined that these works somehow exist in a sort of immaterial supermarket that the DJ sets about to plunder, and that their occurrences (albeit truncated, even fragmented) would constitute in each case direct references (which is the point of view of the law). As if the DJ were to attack each of them one after the other, as if they could be activated (in Goodman's sense of the word) and function as a work just by virtue of the microgroove. But the DJ is precisely the one who has nothing to do with works.

This can be clearly seen in disco, where "what the remix dilates is less the song itself than its immediate periphery, its breaks and its end, the rare moments when it allows the beat and the rhythmic instruments to rise to the surface."³³ Thus music becomes a pure surface, incessantly put in a loop, stretched out and transformed. The model which is appropriate here is less that of smooth space, made up successively of extensions and joints, than that of a weave with successive hollows and layerings. The electronic musician sculpts the sound, producing a texture;³⁴ like Hendrix, he seeks to produce "a sound painting." Hence the extreme attention to micro-details, to the granulation of the piece, "the obsession with small instants," with the limits of sensorial perception. Even dubbing techniques, the decomposition and recomposition of the tracks of a single piece by using its different versions, are more a way of working directly with sound material on the basis of the support of the record than of dismembering a work.

It is thus at the cost of a singular displacement that the electro-quotation work of someone like John Oswald (whose *Plunderphonics* owe as much to Burroughs and Schwitters as to the pioneers of the remix) is sometimes erected as a model of the DJ's performative listening. The performance is thus akin to the reading of a text whose meaning-producing segments have to be reordered. The romantic philosophy of mu-

sical arrangement deals with it fairly well: between two sets, the DJ can also bow to the Work that remains forever unfinished, always deferred in a performance that oscillates between appropriation and disappropriation, translation and critique.³⁵ But if the DJ produces no work, then there is all the less reason to suggest that he reads it like a text. He goes through thousands of works at once looking for his material; he skims over his entire collection at infinite speed (Afrika Bambaataa's collection is alleged to have been enormous and particularly eclectic). One need only listen to Grandmaster Flash talk about his musical sampling: "It can be anything. I have records here that, overall, are the shits, but there are twelve seconds on them that I can use..."³⁶ It is a pragmatic approach, which seeks out the performative effect and has nothing to do with a critique of forms. Nor, in spite of the analogies which are perhaps suggested by the expression "sound sculpture," does it have anything to do with the analytic listening encouraged by acousmatic or concrete music, which immediately places itself in front of a musical material prior to any structuring, given prior to any mediation (the "sound object," which is a sort of negative of the system of musical constraints³⁷). The DJ does not stand facing the sound object (Schaeffer), nor does he immerse himself directly in pure sound (La Monte Young): on the basis of the original repetition of a rhythmic cell, which he is in charge of bringing to life for the duration of the performance, he finds his way by metonymy in a musical universe made up of countless titles cut in the micro-grooves of his memory. The work is thus by-passed or short-circuited rather than abolished – and with it, a whole sector of critical discourse.

From gesture to work

Downstream now: if the music that has been manipulated is dismembered, then recomposed, if there is no more "piece," but only sound layers and favourite moments, is it still possible to speak of a work with regard to the creations of a DJ or an electronic musician? The question is not entirely new; it was first of all raised with regard to improvisation and, more generally, creative interpretation. The terms are not so very different when it comes to the mix. Only an organic conception of the work, which ascribes it a structure articulated and overseen by the author's general design, is liable to cast suspicion on a piece obtained through more or less improvised joints of different musical frameworks. And only

the unconscious reproduction of legal norms forbids us to take for a work (that is, for an *original* work) a composition that re-appropriates fragments of other works. Doubtless there arises here the problem (which is ontological as much as aesthetic) of the temporal limits of a work conceived only to be re-appropriated. But what, exactly, is meant when evoking the principled incompleteness of electronic compositions?

Maurizio certainly does not produce works in the sense of an opus, or even a piece, but in the sense of a series conceived on the basis of the same rhythmic and sound pattern, through the re-assembly of motifs and the variation of fundamental parameters (bpm, sound effects, reverb effects, and so on). Each album thus proposes raw materials or samples conceived especially for re-appropriation: a musical palette, a veritable sound chart. In other words, there is no *work* to be misappropriated. Nor any "rhizomatic" pattern devoted to metamorphosis or proliferation in the unforeseeable flux of the network. The pattern is never in the thing itself, it always takes place on the outside, through joints and extensions. It is only through the effect of a singular distortion of Deleuzian intentions that one feels entitled to associate this purely mechanical notion with the romantic (and still Cageian) idea of a process-work which is held to be a moment or a mirror of the self-forming process of life itself. Maurizio creates no pattern, because pattern is not something that can be created. He prepares pulsing weaves, nothing more. One appreciates the quality of their texture, the elegance and simplicity of how they were made. The operative model here is craftsmanship. Dismissing right off the bat the reference to the work as much as to the authorship of the artist, he extracts himself outright from postmodern discourse, as well as from all the affectations of cyberthought (rhizome and flux, work-in-progress and copyleft).

Misunderstandings: electronic music, contemporary music

Aestheticism, the common point between the discourses of celebration and denunciation of the work, relies on the belief in an ideal face-to-face situation between a musical subject and a musical object. In its modern and postmodern variants, it has the disadvantage of causing us to overlook the fact that a work cannot function as a work (nor for that matter be contested as work) outside of the system of which it is part, which allows it to be recognised even as it puts it to specific uses. The

techno craftsman does not primarily aim at producing a work, any more than he aims at denouncing the concept: he seeks a sufficiently well-wrought sound, rhythmic motifs liable to "function" in certain contexts and for certain uses (dance-floor, intimate, concentrated or distracted listening, re-appropriation by other musicians, and so on). The dialogue of the deaf between a condescending and paternalistic Stockhausen and a handful of electronic musicians torn between hilarity and reverence³⁸ reveals, more than a mere divergence between aesthetic canons, irreconcilable conceptions of the function of music and the authorship of the creator. The contemporary musician's condemnation of the effects of looping and repetition, his valuing of "interesting rhythms" – in other words, rhythms that are non-metrical and non-periodic – cannot be reduced to a question of form (variation as opposed to repetition), nor to an ethical injunction (work as opposed to simplicity). What is at stake is also more than the nature of the musical "form of life," music's mode of insertion into life, the practical effects of its authorship. Stockhausen sent out a warning: "as soon as it becomes a pretext for an ambience, for an atmosphere, as it were, or is used with a very specific goal in mind, music becomes a whore." His advice to youth: listen to *Kontakte*, and you will understand "the art of metamorphosis." To which Aphex Twin replied: "Do you think people can dance to it?" And Scanner: "What I like in repetitions is that the listener is pulled into an ambience of false security, but when that becomes too abstract – with collages – I find it very hard to digest over a long period." And Daniel Pemberton: "It [*Kontakte*] is obviously based on sound, and all its harmony, for a non-musical ear, sounds like a piano being hit at random. It would be really interesting to put hip-hop breaks over the top."

Music in the décor

One would be hard pressed to better articulate the specificity of authorship and its practices within the framework of techno. The abolition of the author never has the chic appeal of the elocutionary disappearance of the poet-musician (Cage becoming a Zen operator, Stockhausen a cosmic magus). It does not have anything to do either, whatever might be claimed, with the abolition of the *work* in performance art. Though the author disappears, it is in having himself recognised as a piece in a larger framework. This idea encompasses two different phenomena.

Firstly, the idea of a participative relationship to music. When mention is quite rightly made of the telescoping of production and reception in the framework of a performance, this must first of all be understood from the musician's rather than from the listeners' perspective, for the latter, involved in dancing or personal listening, can in no respects claim to be replacing the creator. One could speak of the author's *performative* abolition, when the creator models his performance, not on the exigencies of a work to be executed, nor on the demand or the caprices of a listener-consumer, but on the qualities of the moment (the ambience, the atmosphere) and the anticipated effects of the music on the dancing crowd. He is a listener-performer, but first and foremost a "ferryman" or programmer: connoisseur and collector, musical archaeologist and evangelist, he appropriates what he hears and redistributes it to others,³⁹ like the Jamaican DJ with his sound system, like David Mancuso playing his favourite records for his friends at the Loft in the early days of disco.

Second abolition of the author: the advent of distracted, inattentive listening, the idea of musical performance like atmospheric coloration. Brian Eno constantly comes back to his central concern, of "how to escape the personalisation, the idea of the singer with his microphone",⁴⁰ but it is in order to better project the author into his music, and the music outside: "If one leaves one's own personality out of the picture, one invites the listener to come in... My intention in *On Land* was to make music that was like figurative painting, but without making reference to a history of music – rather to a 'history of listening'."⁴¹ Painting listening, not through the reflexive play to which the art of the twentieth century accustomed us, nor through soliciting the analytical and performative listening of the reader-listener, but by creating a "figurative environment." One should of course not see in this any return to the representative conception of a programmatic form of music. Quite to the contrary, from the texture to the landscape, it is always the erasure of the motif of the voice that is sought, and in the same movement the disappearance of all semantic articulation. The author does not disappear in the proliferation of multiple meaning, but in the dullness and mutism of a form of music that blends into the landscape and no longer demands active listening. This is how "ambient" music shores up its diffuse authorship, by proposing, as Eno says, "numerous levels of listening without privileging one of them in particular."⁴² From the revelation of the Balinese gamelan (Debussy) to "furniture music" (Satie), from Muzak to the "ambient" style of contemporary

electronic music (electronica, isolationist music, space music, sound art, sound design, pictorial music, new age, chill-out and so on), music is defined by the fluidity of its listening, and a certain relationship to space. One has to be able to listen to it at home, in the car, in an elevator, while talking or doing housework.⁴³

It is thus not enough to introduce into music everything from one's environment (Cage), or to decree that everything is music (Fluxus); it still needs to be understood how music can literally blend into the landscape (Eno). Music thus leaves the stage and its theatre of signs. It merges into sound environments, into the chill-out spaces in clubs, into that technology of isolation which is inseparable from the daydream of infinite spaces and which Glenn Gould already prefigured in *The Idea of North*.

The techno device

The supports and forms of techno, the interfaces where its practices take place, can be reduced neither to the frenzy of the rave, nor to fantasies of an entirely electronic music, carried by the immaterial flux of the network. Techno indicates a sharing of experience, a form of "sharing the sensitive" in the sense Jacques Rancière attributes to that expression:⁴⁴ an unstable cut-up of the sayable and the visible-audible, which at the same time defines ideas of community. This sharing displaces the border between popular and high art. It promotes to the rank of "artistic" practice the craft of the artisanal musician, while simultaneously marking the decline of the artist-author. It contests the hierarchy of the stage by the means of which music represents its empire: neither face-to-face with the Work (the ritual of the classical concert), nor hand-to-hand with the audience (the rhetoric of pop-rock passions), the DJ at work over his turntables is an operator without a theatre. Lastly, techno dismantles the listening procedure specific to the representative regime of music, by projecting it outside, into the realm of life (from club to rave, from record to soundscape). On the basis of these constituent divisions, techno maintains the great interpretative forms in which it is able to express itself (ethnography and futurology being but the most caricatural modes), but also the ideas of community which want to surround it in some cases with the faithful in a trance (the rave, Dionysian and fusional community) and at other times with the network of enthusiasts (home studio practices, electronic listening music). From each of these points of view, the

author takes on a new face, disappears and reappears under different modalities. Based on social relations but also on specific supports and techniques, the author constantly defines the modes of circulation, valuation, attribution and appropriation of the music.

Elie During

Notes

1. Pierre Lévy, *Cyberculture* (Paris: La Découverte, 1997), pp. 166 sq.
2. See for instance Dick Hebdige, *Cut'n'Mix* (New York: Methuen, 1987), p. 141; Paul Gilroy, *There Ain't No Black in the Union Jack* (London: Routledge, 1991), p. 211.
3. See Jean-Louis Weissberg, "L'amateur: émergence d'une figure politique en milieu numérique," in *Multitudes*, no. 5, "Propriété intellectuelle," May 2001, pp. 221-33. And Pierre Lévy, *op. cit.*, p. 171: the techno musician is "at once the producer of raw material, transformer, author, performer and listener in an unstable and self-organised circuit of cooperative creation and concurrent appreciation."
4. This was already Barthes' idea, which in the same year that the modern DJ was born (1968, Francis Grasso), heralded the replacement of the "organism" metaphor by that of the "network." See Barthes' "Death of the Author," in *Le Bruissement de la langue* (Paris: Le Seuil, 1984), pp. 65-66.
5. Michel Foucault, "Qu'est-ce qu'un auteur?" (1969), in *Dits et Écrits* (Paris: Gallimard, 2001), vol. 1, p. 838.
6. "But it would be pure romanticism to imagine a culture where fiction would circulate in absolute freedom, available to everyone, developing free from any attribution to a necessary and constraining figure." *Ibid.*, p. 839.
7. See Pierre Bourdieu, "Mais qui a créé les créateurs?," in *Questions de sociologie* (Paris: Minuit, 1984), p. 219.
8. See Antoine Hennion, *La Passion musicale* (Paris: Métailié, 1993), pp. 351-373.
9. The title of Amon Tobin's famous album, the word means "handyman-style tinkering."
10. "Copyright Liberation Front" is but one interpretation amongst many others of this cryptic acronym.
11. Quoted by Bill Brewster and Frank Broughton in *Last Night a DJ Saved My Life: A History of the Disc Jockey* (New York: Grove Press, 1999), p. 352.
12. See Christophe Kihm, "Évolution n'est pas révolution," in *Art Press*, "Techno: anatomie des cultures électroniques," Special issue no. 19, 1998, pp. 21-22. See Alexandre Laumonier on the "White Labels," in "Courtesy of..." *Ibid.*, p. 84.
13. See David Toop, *Ocean of Sound, Aether Talk, Ambient Sound and Imaginary Worlds* (London: Serpent's Tail, 1995).
14. *Ibid.*, p. 224.
15. See Bastien Gallet, "La boucle infinie du breakbeat: remarques sur les musiques électroniques," in *Critique*, "Musique(s): pour une généalogie du contemporain," no. 639-640, August-September 2000, pp. 804-812.
16. Kodwo Eshun, "La capture du mouvement," in *Nomad's Land*, no. 3, 1998, p. 71.
17. *Ibid.*, p. 69.
18. Quoted in Pascal Bussy, *Kraftwerk: le mystère des hommes machines* (Nancy: Camion Blanc, 1996), p. 86.

19. See "From Detroit to Deep Space," *The Wire*, no. 161, July 1997, p. 22.
20. Quoted in David Toop, *op. cit.*, p. 335.
21. See Franz Liszt, *De la situation des artistes et de leur condition dans la société*, in *Revue et Gazette musicale de Paris*, 2, 10, 17 May 1835.
22. Michel Foucault, *op. cit.*, p. 839.
23. See Bill Brewster and Frank Broughton, *op. cit.*, pp. 320 ff.
24. Mixmaster Morris, quoted by Simon Frith (ed.), *Music and Copyright* (Edinburgh: Edinburgh University Press, 1993), p. 8: "Sampling in theory offers nothing more than what you could already do with a razor blade and a tube of glue. You simply have less chance of cutting your fingers, it takes a lot less time, and the process is reversible."
25. See Jean-Paul Olive, *Musique et Montage: essai sur le matériau musical au début du XXe siècle* (Paris: L'Harmattan, 1998).
26. Christophe Kihm, "Territoires du hip-hop," in *Art Press*, "Territoires du hip-hop," special issue, December 2000, p. 9.
27. Listen to *Demolition Pumpkin Squeeze Musik*.
28. Listen to *Excited by Gramophones*, vol. 4.
29. See for instance Richard Shusterman, *L'Art à l'état vif: la pensée pragmatiste et l'esthétique populaire*, Paris, Minuit, 1992, p. 190-191.
30. See Jean-Paul Olive, *op. cit.*, p. 5-23.
31. Ulf Poschardt, "Le sampling à l'époque de son utilisabilité technique," in *Nomad's Land*, no. 3, 1998, p. 22.
32. Paul Gilroy, *op. cit.*, p. 215; Brewster et Broughton, *op. cit.*, p. 118.
33. Bastien Gallet, "Le mix, le remix et la glose," in *Musica Falsa*, no. 12, automne 2000, p. 19.
34. Kodwo Eshun, *op. cit.*, p. 64.
35. Peter Szendy, *Écoute: une histoire de nos oreilles*, Paris, Minuit, 2001, pp. 161 and 57.
36. Quoted by Ulf Poschachdt, *op. cit.*, p. 15.
37. See Emmanuel Grynszpan, *Bruyante techno: réflexion sur le son de la free party* (Paris: Mélanie Séteun, 1999), pp. 78-80.
38. "Advice to clever children..." *The Wire*, no. 141, November 1995, pp. 32-35.
39. Peter Szendy refers to "listeners performing a concert" (*op. cit.*, p. 91).
40. Interview with Brian Eno, "The Enosphere," in *Art Press*, n° 271, September 2001, p. 28.
41. *Ibid.*, p. 27.
42. Quoted in David Toop, *op. cit.*, p. 23.
43. Ralf Hütter from Kraftwerk: "Black music is very environmental. It is particularly integrated into a way of life. You can do your housework listening to it..." (quoted in David Toop, *op. cit.*, p. 214). See Elie During, "L'aspirateur et autres procédés," in *Musica Falsa*, Spring 2000. And more generally, on the musical process and its exterior, see: "Logiques de l'exécution: Cage/Gould," in *Critique*, no. 639-40, 2000, pp. 752-769.
44. See Jacques Rancière, *Le Partage du sensible* (Paris: La Fabrique, 2000), pp. 12-25.

LIFE IN TRANSIT

DAVID TOOP

"Our lifestyle changes, evolving towards scenarios where lights, sounds, images and communication are ever more the main protagonists. But our daily gestures remind us that in a virtual world, our greatest asset is still our body. According to that, we use materials, surfaces, forms and colours which confer authenticity to our daily rituals."

Design company advertisement, *Wallpaper* magazine, July-August 2001

Mexico City, July, 2001; three musicians move at a half-run, trying to cross the busy road intersection slicing through a sprawl of market stalls. One carries maracas, two carry guitars. Perhaps they are late for an engagement, or escaping retribution for some musical misdemeanour. They are mobile. They carry forms of musical technology that have been developed for movement, adaptability and ease of use.

Shinjuku, Tokyo, June, 2000; huge screens mounted above the square pour out a constant stream of pop videos, advertisements, psychedelically disorientating images, words: population, disease, energy. Music and advertising jingles blast from shops, loudspeakers, high buildings. A big-screen computer game at street level – *Let's Shake* – for two players ... the players – a woman and a young girl – shake maracas at cartoon Mexicans. The game is as frenzied and hard to comprehend as the stream of movement through Shinjuku, people flowing in fierce currents as if energised by the heat of the images, the scattering power of the sound.

During the twentieth century, the new manifestations of mobility that emerged during the late nineteenth century – steam train, steam ship, automobile and flying machine, along with less tangible facilitators of long-distance communication such as the telegraph, telephone and radio – forged an intimate and progressive relationship with music. Famously, as represented in Gavin Bryars' composition, *The Sinking of the Titanic*, the ship's band had played as the Titanic sank to the bottom of the North Atlantic ocean in 1912. This functionalism, a submission to movement and its worst implications, seemed the ultimate expression of Erik Satie's idea

for *Musique d'Ameublement*, in which performers distributed throughout a room would play snatches of familiar melodies to an audience faintly aware of the music as a mask of silence and dispersed, ambient noise, rather than a focus for audition.

Musical functionalism aligns with mobility and economic migration: itinerant bluesmen, such as Robert Johnson or Skip James, playing guitar for impromptu parties, singing "Crossroads Blues" or "Look Down the Road," then moving on. "Coahoma County musical history had three periods, each signalled by a typical sound," wrote Alan Lomax in his book *The Land Where The Blues Began*—a steamboat blowing for a landing, a locomotive whistling on a three-mile grade, and a Greyhound bus blaring down Highway 61." The infinite road, musical time and the unfolding of audio narratives are structurally entwined.

Mobility is a necessity for the brass bands, marching bands and choirs associated with social clubs, political movements, parties and sporting events, carnivals, protests and funerals. Music of all styles documented and celebrated dynamic movement and the technology of high-speed travel throughout the twentieth century: Arthur Honneger's "Pacific 231," Sun Ra's "Rocket Number 9," Harry Partch's "Barstow," Bo Diddley's "Roadrunner," Junior Parker's (and Elvis Presley's) "Mystery Train," Jonathan Richman's "Roadrunner," Jimmie Rodgers' "Brakeman's Blues," War's "Low Rider," Kraftwerk's "Trans-Europe Express" and "Tour De France," Johnny Burnette Trio's "The Train Kept A-Rollin'," James Brown's "Night Train," The Beach Boys' "I Get Around," Howlin' Wolf's "Smokestack Lightnin'," Steve Reich's "Different Trains," Gary Numan's "Cars," MEV's "Spacecraft," Model 500's "Night Drive," David Bowie's "African Night Flight," Aux 88's "Direct Drive," Grace Jones's sexamotive "Pull Up to the Bumper," Yoshinori Sunahara's "747 Dub" and a host of genre records devoted to motorcycles, trucking, CB radio communications, custom cars, hotrods, jet flight, space flight, flying saucers and surfboards.

Trajectories of sound

In the twenty-first century, the traversal of physical space is overshadowed by disembodiment. Words, sounds and images disperse in hypertextual depth, as predicted by John Cage's *Mesostics* (vertical and horizontal meaning) and the "words-in-freedom" of Marinetti, text exploding across the page, sent hurtling into unknown dimensions. Movement

is a shadow process, a geographical memory passing through the two-dimensional frontier of virtual space. Yet insubstantiality maintains an inevitable attachment to corporeality. The body lingers. Many of the first experiments in electronic and concrete music used transportation or physical movement as either theme or source material for sound constructions that were challenging the physicality and humanistic values associated with music production. For his first *musique concrète* creation, *Études aux Chemins de Fer*, created in 1948, Pierre Schaeffer transmuted recordings of railway engines, and in 1961, Max Matthews's voice synthesis program, developed under the patronage of Bell Telephone Laboratories, sang a synthetic version of "Bicycle Built For Two".

The malleability of sound made possible by electronic instruments, magnetic tape, loudspeakers and the recording studio enhanced possibilities of sonic movement envisaged by composer Edgard Varèse, who wrote of "masses of sound moving about in space, each at its own speed, on its own plane, rotating, colliding, interacting, splitting up, reuniting." In 1958, Varèse composed *Poème Electronique* for the Philips Pavilion at the Brussels World Fair. Le Corbusier had designed the pavilion as a triangular tent and the tape composition was relayed through more than four hundred loudspeakers distributed through the interior. Intense parabolas of sonic events swooped through the space, illustrating Varèse's vision of "trajectories of sound."

One of the most important early electronic works to confront the challenge of spatial movement was *Gesang der Jünglinge*, composed by Karlheinz Stockhausen between 1955 and 1956, then first performed in Cologne in 1956. The work was composed for five groups of loudspeakers, distributed around the listeners. "The old indivisible relationship between music and space here receives a new impetus, movement of the sound," wrote Karl H. Wörner in his 1973 book, *Stockhausen: Life and Work*, "for the sounds continuously 'wander' from one to another of the loudspeakers placed around the audience. Suitable listening areas for this kind of 'music in space' do not yet exist. Stockhausen thinks that the ideal would be a spherical area furnished with loudspeakers at various points. In the middle of this spherical area a suspended platform of some transparent and acoustically conductive material would hold the listeners so that they could then hear the music composed for such an area coming from above and from below them, in fact from all directions."

As Wörner records, such aspirations continue a tradition that dates

back, in Europe at least, to the multiple choirs and organs distributed throughout places of worship such as the Cathedral of St. Mark's in Venice in the sixteenth century, the echo effects of Mozart's *Notturmo* (K. 286), the Grail scene in Wagner's *Parsifal* and Charles Ives's spatial distribution of the orchestra in *The Unanswered Question*. Futurist ideas, fetishising the speed and dynamism engendered by emerging technologies of the early twentieth century, also contributed to these investigations of decentred and immersive sound sources. But the excitable theories of the Italian Futurists – Marinetti and Russolo – and their glorification of industrial noise, explosions and the Doppler effect of shell trajectories as they screamed overhead in battle were academic in comparison to a more far-reaching revolution. The process of recording musical performances, freezing and preserving the moment on carriers such as cylinders and discs, triggered a profound and permanent shift in the general conception of music's intrinsic qualities.

From the late nineteenth century onwards, a musical performance could be experienced on repeated occasions and in a wide variety of environments. The document of the performance could be transported and then played as a performance in itself. These characteristics of recorded music contributed to a growing sense of displacement and, in some cases, discomfort. In his study of classical music recordings, *A Century of Recorded Music: Listening To Musical History*, sound archivist and historian Timothy Day quotes the British composer Benjamin Britten: "Britten considered it 'one of the unhappiest results of the march of science and commerce', that Bach's *St Matthew Passion*, composed for performance on a particular day in the church's year, was now being used to provide a discreet accompaniment to the conversation of guests at a cocktail party."

Travellers to the African and Amazon rainforests would travel long distances and in arduous conditions with portable gramophones and discs of European classical compositions in order to test theories of musical universality that carried traces of Nazi ideology. Could a savage appreciate Mozart or were the great works of European civilisation indicators of racial superiority? At the same time, wire, cylinder, acoustic phonograph and magnetic tape recordings could be made in remote regions, then brought back to the developed world as a literal record of previously inaccessible and alien sound worlds. These sound worlds were not always what they seemed to be from a distance. For example, the first

Japanese ethnographic recordist, Hisao Tanabe, had recorded indigenous music in Okinawa, Sakhalin and Taiwan in 1922-23. When he read a travel guide to Micronesia he decided to record there in 1934. His aim was to compare the music of the Micronesian islanders, seemingly untainted by civilisation, with what was known of ancient Japanese music. The reality, of course, was different, since Micronesian music had been dramatically affected by the educational policies of the Japanese authorities and the teachings of Christian missionaries. Only old people knew traditional songs. Indigenous music was forbidden and so Hisao encountered huge problems in his attempts to record "real" Micronesian music.

The medium of radio (originally called wireless – a celebration of the medium's disconnectedness) projected music across huge distances, further encouraging a sculptural approach to sound. If sound could be captured, then distributed through the ether, it gained two contradictory qualities: first, an increased insubstantiality, as if sound was a mysterious invisible force like electricity, and second, the plasticity of clay. Through recording, radio and electronic instruments like the Theremin, sound grew more detached from the human body.

The Theremin, developed by the Russian inventor Leon Theremin in 1920, was an electronic musical instrument controlled by precise movements of the hands in free space. Significantly, the hands of the player would never touch the instrument. Instead, they altered the electromagnetic field generated by a variable oscillator circuit housed within the instrument. "Lev dubbed his invention the 'etherphone'," wrote Albert Glinzky in his biography, *Theremin: Ether Music and Espionage*, "to 'distinguish it from products of the contact or keyboard method.' The reference also, of course, was to the 'ether waves,' an especially trendy notion in the delirious new era of broadcasting – one the layperson appropriated to explain, and sometimes mythologize, the magic of radio."

As well as its suggestions of immateriality, sound conjured out of thin air, the Theremin allowed extreme and novel shapes to be formed from sound vibrations, similar to the parabolas of sound heard by the Futurists on the battlefield and envisaged by Edgard Varèse. Although Theremin's application of the instrument was conservative, an electronic re-enactment of existing classical compositions, an implication for the future was that sound might be shaped in the same way that a sculptor like Brancusi could shape resistant materials into fluid forms. In one sense, this was no different to the way in which musicians and composers had

always worked with sound, yet the increasing alienation of sound production from an intricate co-ordination of body parts – lungs, lips, fingers, elbows, eyes, ears and even feet, in the case of marching bands, pianists, tympanists and jazz drummers – conspired to situate music further outside human physiology.

Shave me Shave me Shave me

Music is closely related to human perceptions of time and its segmentation. Time unfolds, seemingly forward, yet also laterally and in cycles, and the perception of time is subjective, as well as quantifiable. Time can drag, stand still or rush by, just like music, yet the quantification of music is determined as much by technological constraints as formal artistic decisions. Musical movement is a metaphor and simulation of movement through space, as well as an enactment, actual and metaphorical, of time and its elasticity. Music takes time and makes time, yet only takes up space (excepting performers, music technology and music objects such as CDs) by vibrating the air. The physicality of music exists as an element of its holistic impact, yet is hard to fully comprehend except in situations when physicality is a component part of a musical event. Despite this insubstantiality, music has a remarkable capacity to convey the experience of movement.

This kinetic nature aligns with the emergent sense of an accelerated mobility of physicality and information within the complex web that connects the body to an increasingly unfamiliar landscape. Cellular phones are one of the most obvious outward signs of this mobility. Their disconnection from a centralised, fixed point allows social and professional connections to be made in unlikely environments. They allow a previously impossible feeling of individuality and freedom, an illusion of control over the communication process, yet their ubiquity generates conflicts in this same arena of individuality. Too many cellular phones in one environment can cause confusion and so music is used to differentiate call signals and, at the same time, establish individual identities. Cellular phone owners can download their own ring tone from a variety of Internet sites, choosing from melodies as diverse as the Albanian national anthem or Bernard Herrmann's soundtrack cue for the shower scene in *Psycho*. An extension of all fashion statements, the effect is similar to a T-shirt that proclaims a whimsical, sexy or aggressive message – the user adopts

Flyers Brochures or cards announcing a rave or a party. Initially used as mere invitation cards, they are now a genuine specialised means of communication and are even collected.

Garage This musical form comes from the New York club called the Paradise Garage (Larry Levan). Started in 1976, this style, which is a precursor of house, leaves ample space for voices and Afro-American rhythms, influenced by soul music and gospel.

Hip hop A cultural movement which emerged in New York towards the end of the 1970's, bringing together forms of musical, choreographic and pictorial expression (graff' and tag). Though the musical manifestations of hip hop were originally based on the relationship between DJ's and MC's (rappers), technological development quickly enabled the development of the practice of sampling as a way of constructing beats. Though hip-hop's musical expression is today largely dominated by rap, other sub-genres are linked to it, regrouped under such sibylline names as abstract hip hop or trip hop.

House House music, which stemmed from the post-disco gay clubs of New York and Chicago, is a derivation of soul and disco, distinguishing itself by laying stress on the fortes of the bass drum, as well as through an expressive minimalisation aimed at finding a sort of "lowest common denominator" of the groove. It is alleged to have been born beneath the fingers of New York disco DJ Knuckles, when he began to rework pieces by Donna Summer, Sylvester and other disco artists by using rhythms taken from cheap drum machines at the Chicago club The Warehouse in the early 1980's. In 1983, Jesse Saunders made what is generally considered the first house record, *On and On*.

Intelligent A somewhat unfounded term, whose usage is today somewhat old-fashioned, which was used to designate the music of artists who sought to get away from the formal yoke of musical genres through a certain sophistication, above all in techno and drum'n'bass.

Jungle First appearing in public in August 1991 at the Notting Hill carnival, jungle is based on the breakbeat of hip hop, whose tempo is doubled in order to reach or even exceed pieces of hardcore techno, associated with the deep basses of dub. Fabio and Grooverider were the early mentors of the genre, which was subsequently also known as drum'n'bass, and which constitutes, moreover, the first specifically British form of dance music. Numerous artists are involved in the different currents of this genre, popularised by such figures as Roni Size.

Label Beyond its literal meaning, the label refers to a trademark linked to a record publishing house. However, a record publisher can commercialise its productions on several labels, which is notably the case for multinationals. Historically, the proliferation of independent labels has been accentuated with the development of different forms of electronic music, whose production costs are generally lower. The appearance of independent labels bears witness to a form of reaction against the record industry, in particular against the commercial and artistic policies of the majors. The expression "white label" refers to quasi-anonymous productions (generally white label and cover, sometimes with a hand-drawn sketch) in a limited edition.

Loop The repetition of a musical sequence.

MC The acronym for "master of ceremonies," this term literally refers to the person at the microphone, who directly addresses the crowd to get the ambiance going. Historically, his role developed in hip hop next to the DJ, and the term has subsequently been used to refer to the rapper.

MIDI The acronym for "Musical Instrument Digital Interface," a standardised computer language enabling information exchange between different machines used in musical creation (computer, sampler, sequencer, synthesisers, etc.)

a message, or ring tone, that is calculated to convey a succinct public encapsulation of personality to a group of strangers.

Mobility is usually the key to these aspirational statements. After all, a woman wearing a Toby Mott *shave me shave me shave me* T-shirt is not asking to be challenged on her demand or be subjected to on-the-spot analysis, let alone stopped and shaved. The mobile audio manifesto is intended as a passing marker of identity, a partial fiction above and beyond analysis, since the author is unknown to his or her audience... merely passing through. Personalised ring tones for mobile phones update the mid-1980's fad for oversized radio/cassette players, known either as boom boxes or, barely concealing a racist assessment of their popular appeal, ghetto blasters. Raps like LL Cool J's "I Can't Live Without My Radio," the monstrously oversized radio photographed for the front cover of the record, and the aggressive answer to that record, Steady B's "I'll Take Your Radio," underlined the escalating potency of music technology that accepted and celebrated life lived fluidly and openly, on the streets, on the move.

The predicted fashion for clothing with built-in technological gadgetry assumes that mobility and autonomy are likely to be highly-valued qualities for future lifestyles. The concept was unwittingly predicted by English composer Gavin Bryars, with his text and photographic piece, composed in 1969, *Marvellous Aphorisms Are Scattered Richly Throughout These Pages*:

Any number and kinds of quiet sound sources
 Concealed inside clothing in such a way that their activation and
 manipulation is outside public view
 Inside shoes, hats, coats, trousers
 Bulky maybe, but quietly buzzing
 A bottomless mine of useless information
 First it was like Harpo Marx
 John saw it like an old man on a park bench
 I saw it like a prince among poets, constantly seeking out marvellous
 aphorisms.

With this piece, Bryars addressed the magical attraction of the itinerant, the wandering sorcerer, the Pied Piper of Hamelin playing a humble but secret music that demands to be followed. Undermining, even dismantling the dominance of the concert hall, was a priority of twen-

tieth century experimental music – to bring the sounds of the external world into music, or to liberate the music from conventional performance spaces. As an example, an event that took place in New York City in May 1965, and documented as *Kicking Robin Page's Guitar Around the Block*, was described by Fluxus artist George Brecht in *Art and Artists* as “part of the Yam Festival, when we kicked the guitar down the stairs from the Hardware Poet's Playhouse, past the Museum of Modern Art, and the Whitney Museum, around the block, left and then right again across the street, and up the stairs again...”

Transmission system

“The murmur of the transmission system reverberated through my legs and spine, echoing off the plates in my skull as if I myself were lying in the transmission tunnel of the car, my hands taking the torque of the crankshaft, my legs spinning to propel the vehicle forwards.” from *Crash*, J. G. Ballard

In 1917, the founder of the Italian Futurist movement, Marinetti, wrote, “Noise is the language of the new human-mechanical life.” He also praised the purity of speed, the “holiness of wheels and rails.” Max Neuhaus's *Drive-in Music* was described by Michael Nyman, in his *Experimental Music: Cage and Beyond*, as “an attempt to improve the environment for motorists by establishing areas of sound, which can be heard only through an AM radio, along a mile of street or roadway. These would function permanently or semi-permanently, available twenty-four hours a day for anyone driving along that road. A number of low-powered radio transmitters are set up by the roadside in such a way that their areas of broadcasting overlap, so that at any one moment the listener (driver) hears a combination of sounds, which changes according to how one drives through the area. (I suppose the temptation must be resisted to drive backwards.)”

The English electronic music pioneer, Hugh Davies, devised a comparable environmental music project in which the only music “technology” would be the construction of the road itself. His *Singing Road*, first composed in 1969, expanded in 1978, and described in *Musics* magazine, was “based on the accidental singing sounds produced by car tyres moving over certain motorway surfaces. One of the first occurrences of this was (and still is) near the southern end of the M1 motorway, a few miles outside London. The note produced can be varied by changing the speed

of the car (or other road vehicle); the faster the speed, the higher the note. A stretch of the Belgian motorway E41 near Mons, which has a surface that is very worn down in places, produces greater pitch variation without speed changes being necessary.”

The existential freedom of mechanised movement projects into a future of autonomous androids, transport beings moving through free space, or, like a Playstation game, hurtling through virtual space. The car radio, like the portable transistor radio and the Sony Walkman, has been a central instrument of these dreams. George Lucas's film *American Graffiti* was a homage to the mobile life of the 1950s, a new social vision in which racial and sexual boundaries were breached by the catalyst of miscegenated, lurid rock'n'roll. Bass music and jeep beats, music recorded specifically for play in jeeps and so-called muscle cars like the Dodge Challenger, fitted with hugely powerful sound systems, developed out of this cruising lifestyle, in which the car was a second home and the radio a soundtrack to the fantasy of permanent movement.

Miami bass is the most famous example of this genre. Cars customised to deliver maximum bass were serviced by recording acts which concentrated primarily on exaggerated sub-bass frequencies generated by the bass drum sound on a Roland 808 drum machine. The most important inspiration behind this genre was Afrika Bambaataa's “Planet Rock”. Recorded in New York City by DJ Afrika Bambaataa with rappers Soul Sonic Force, engineer Arthur Baker, keyboard player John Robie and producer Tom Silverman in 1982, “Planet Rock” was a call to the global tribes to unite and party. The mechanical propulsion of the track was revolutionary for its time, a template for Miami bass records with titles like “Temple Of Boom” and “The Cars That Go Boom”.

Breakbeat and techno artists such as Tipper in England have developed jeep beats into a sonic fetish, closely aligned with custom car freaks who compete to construct the loudest in-car sound system. Kraftwerk's “Autobahn,” one of the formative recordings of techno, began with the sound of a car door closing and the car driving away. Kraftwerk's fascination with the endless vanishing point of motorways and railway tracks, the structural model on which their own compositions were based, combined with the implicit nihilism of Jan and Dean's “Dead Man's Curve” or The Shangri-Las' “Leader Of The Pack,” in which fast cars, motorcycles and death were logical partners. The car customisers create Manga music for night drives through Babylon, music whose

physicality infiltrates itself into the body of the listener: squirts of fuel injection flooding monster engines with ultra-propellant, power-up frequency swoops, vast pistons driven by bass drones operating at levels that vibrate internal organs yet bypass the ears, overdriven electrical systems and impact explosions, ethereal choirs of downforce. Enveloped by the sound at overwhelming volume, a human can sense the future shock of machine hybridisation.

Self-unification

The theme of journeying and music parallels another close association: the relationship of music and drugs. For 1960's hippies, to use psychedelics was to trip, and many of the metaphors of drug use – journey within, mind expansion, and so on – are grounded in images of movement. Music that glorifies mechanised movement is a trance beat, an accumulation of repetitions that echo the pistons of the steam era, the click of train wheels, the hypnotic swish of windscreen wipers. This transition – from songs about machine speed to songs about drug experiences – could be heard in the 1960s, in the work of guitarist Davie Allan, whose instrumentals recorded for Hells Angels movies condensed biker and acid genres into titles such as "Cycle-Delic" and "Mind Transferral," and in the rapid mutation of Brian Wilson's songs for The Beach Boys, from "Little Deuce Coupe" to the LSD collapse of *Smile*.

Paradoxically, the fetishisation of movement and power brings its opposite. Brian Eno's *Music For Airports* album, released in 1978, came with its own manifesto. "An ambience is defined as an atmosphere," Eno wrote in the sleevenotes, "or a surrounding influence: a tint. My intention is to produce original pieces ostensibly (but not exclusively) for particular times and situations with a view to building up a small but versatile catalogue of environmental music suited to a wide variety of moods and atmospheres." This project, now better known as ambient music, seemed to simultaneously confirm and ameliorate the anxieties expressed by Benjamin Britten, that music composed for a specific location on a specific occasion could be used as background ambience for a cocktail party. Eno rightly perceived airports as sites of discomfort, transitional zones where the appropriate music might exert a calming effect on nervous travellers adrift in worry, confusion and perpetual motion. Music might have a transformational function in such situations, a milder version of

being stoned. We might think of Mariko Mori's video piece, *Miko no Inori*, "The Shaman Girl's Prayer," performed at Osaka's Kansei International Airport in 1996, Mori vocalising an endless, cyclic chant, ensilvered in bulbous synthetic body suit, shamanising with crystal in order to settle the vibrations of hypermodernity's transit station.

At the ultimate symbolic and actual site of nomadism, the airport, Brian Eno's music offers a kind of glue with which to briefly cement together the fragments engendered by such a fluid, potentially stressful environment. This might be what Gilles Deleuze describes as self-unification. The walkman, launched by Sony in 1980, was developed as a response to atomisation in the family. Media which broadcast publicly within a space can cause friction when everybody wants to hear or see something different. Private technologies, pioneered by the Walkman, allow each member of a family to enjoy their own taste in entertainment without interruption. Miniaturisation is an important factor in this domestic revolution, since, as Shuhei Hosokawa wrote in his essay, *The Walkman Effect*, "The more compact, the more portable..."

"Miniaturisation as double strategy – spatial and urban – is deeply connected with another feature of the Walkman, singularisation," writes Hosokawa, "for it enables our musical listening to be more occasional, more incidental, more contingent. Music can be taken wherever and whenever we go. The walkman produces or constitutes a musical event which is characterised as unique, mobile and singular. According to Gilles Deleuze, this singularity is radically different from being individual and personal. It is rather anonymous, impersonal, pre-individual and nomadic."

This trend towards nomadism is most clearly apparent in the use of laptop computers for live electronic music production, seen sporadically in the late 1990's and with increasing frequency in the first years of the twenty-first century. Portable, miniaturised, compact and anonymous, devoid of the weight of history attached to a violin or electric guitar, the laptop creates an instantaneous crisis of confidence in the humanistic values associated with music. The laptop generates an air of mystery, since no transparent relationship is apparent between the body of the performer and the sounds that emanate from loudspeakers. Everything focuses on the mouse, or mouse pad. Even the visual display of the software is hidden behind the raised lid of the computer. Communication becomes ambiguous, the performer is static and the dubious promise of spectacle that normally accompanies live performance is denied.

The laptop, then, evokes a familiar panic. Shuhei Hosokawa describes the position of the cultural moralists who condemned the Walkman in the first years after its launch: "The attitude of the inquirer is a common one; people once lived happily in harmonious contact with nature, but with industrialisation and urbanisation, especially in recent decades, they lose that healthy relationship with the environment, become alienated and turn into David Riesman's 'lonely crowd,' suffering from incommunicability. The walkman, for such an interviewer, is taken as encouraging self-enclosure and political apathy among the young, under a structure of mass control." Similar criticisms have been aimed at the use of laptop computers in musical performance. Pioneered as a performance tool by artists such as Fennesz, Oval, FX Randomiz, Kaffe Matthews, Jim O'Rourke and many others, the laptop is obliged to carry the burden of music's traumatic disengagement from the body and place. The locus of our techno-fear, the laptop is perfectly suited to life lived through e-mail, downloaded software, high-speed trains and airport lounges. Plug in, plug out. Life in transit.

David Toop

A TALE OF THREE CITIES

SIMON REYNOLDS

"Kraftwerk was always very culty, but it was very Detroit, too, because of the industry in Detroit, and because of the mentality. That music automatically appeals to the people like a tribal calling... It sounded like somebody making music with hammers and nails." Derrick May, 1992

To promote Kraftwerk's 1991 remixed "greatest hits" compilation, *The Mix*, the group's American label Elektra came up with an amusing advert: the famous one-and-only photo of blues pioneer Robert Johnson, but with his suit filled by a robot's body. The visual pun was witty and eye-catching, but most importantly, it was *accurate*. Just as Johnson was the godfather of rock's gritty authenticity and wracked catharsis, Kraftwerk invented the pristine, post-human pop phuture we now inhabit. The story of techno begins not in early eighties Detroit, as is so often claimed, but in early seventies Düsseldorf, where Kraftwerk built their KlingKlang soundfactory and churned out pioneering synth-and-drum-machine tracks like "Autobahn," "Trans-Europe Express" and "The Man-Machine."

In one of those weird pop-historical loops, Kraftwerk were themselves influenced by Detroit – by the adrenalinised insurgency of the MC5 and The Stooges (whose noise, Iggy Pop has said, was partly inspired by the pounding clangour of the Motor City's auto factories). Like the other Krautrock bands – Can, Faust, Neu! – Kraftwerk were also inspired by the mantric minimalism and non-rhythm-and-blues rhythms of the Velvet Underground (whose John Cale produced the first Stooges album). Replacing guitars and drums with synthesiser pulses and programmed beats, Kraftwerk sublimated the Velvets' white light/white heat speed-rush into the cruise-control serenity of "Motorik," a metronomic, regular-as-carburettor rhythm that was at once post-rock and proto-techno. "Autobahn" – a 24-minute hymn to the exhilaration of gliding down the

freeway that sounded like a cyborg Beach Boys – was (in abbreviated form) a chart smash throughout the world in 1975. Two years later on the *Trans-Europe Express* album, the title track – all indefatigable girder-beats and arching, Doppler Effect synths – segues into “Metal On Metal,” a funky iron foundry that sounded like a Luigi Russolo Art of Noise meg-amix for a Futurist discotheque.

“They were so stiff, they were funky,” techno pioneer Carl Craig has said of Kraftwerk. This paradox – which effectively translates as “they were so white, they were black” – is as close as anyone has got to explaining the mystery of why Kraftwerk’s music (and above all “Trans-Europe Express,” their most dispassionately metronomic and Teutonic track) had such a massive impact on black American youth. In New York, Kraftwerk almost single-handedly sired the electro movement. Afrika Bambaataa and Soul Sonic Force’s 1982 smash “Planet Rock” stole its doomy melody from “Trans-Europe” and its beatbox rhythm from Kraftwerk’s 1981 track “Numbers.”

But while the body-popping, electric boogaloo era passed quickly (with New York hip-hop pursuing a grittier, Seventies funk direction), Kraftwerk had a more enduring impact in Detroit, where the band’s music plugged into the Europhile tastes of arty, middle-class blacks. From Cybotron’s 1982 “Cosmic Cars” to Carl Craig’s 1995 “Autobahn” homage *Landcruising*, Detroit techno still fits Derrick May’s famous description: “like George Clinton and Kraftwerk stuck in an elevator with nothing but a sequencer to keep them occupied.”

The Techno Rebels

“When I first heard synthesisers dropped on records it was great... like ufos landing on records, so I got one,” Juan Atkins has said. “It wasn’t any one particular group that turned me on to synthesisers. But “Flashlight” [Parliament’s number one rhythm and blues hit from early 1978] was the first record I heard where maybe 75 per cent of the production was electronic – the bassline was electronic, and it was mostly synthesisers.”

Atkins was then a sixteen-year-old living in Belleville, a small town thirty miles from Detroit, and playing bass, drums and “a little bit of lead guitar” in various garage funk bands. Three years earlier, he had befriended two kids in the year below him at junior high school: Derrick May and Kevin Saunderson. “In Belleville,” remembers Saunderson, “it was pretty racial

still at that time, ‘cos it was a decent area. You had to have a little bit of money, the houses were off-lakes, and there wasn’t a lot of black people there. So we three kind of gelled right away.”

Atkins became May’s musical mentor, hiping him to all kinds of weird shit, from Parliament-Funkadelic to Kraftwerk. Says May, “I’m telling you, man: Juan was the most important person in my life, other than my mother. If it wasn’t for Juan I would never have heard any of this shit, I don’t know where I’d be if it wasn’t for him.”

Although the music they were into was all dancefloor-oriented, the Belleville Three brought an art-rock seriousness to bear on what rock fans then dissed as mere “disco.”

“For us, it was always a dedication,” says May. “We use to sit back and philosophise on what these people thought about when they made their music, and how they felt the next phase of the music would go. And you know, half the shit we thought about the artist never even fucking thought about...! Because Belleville was a rural town, we perceived the music a little bit different than you would if you encountered it in night-clubs or through watching other people dance. We’d sit back with the lights off and listen to records by Kraftwerk and Funkadelic and Parliament and Bootsy and Yellow Magic Orchestra, and try to actually understand what they were thinking about when they made it. We never just took it as entertainment, we took it as a serious philosophy.”

Through Atkins, May and Saunderson were exposed to all manner of post-Kraftwerk European electropop (Gary Numan, Giorgio Moroder’s “E=MC²”), alongside quirky American New Wave like the B52’s. Why did this cold, funkless European music strike a chord with black youth from Detroit and Chicago? Atkins attributes it to “something about industry and the Midwest. When you read the history books of America, they tell you that when the UAW – the United Auto Workers – formed, this was the first time that white people and black people came together on an equal footing, fighting for the same thing: better wages, better working conditions.”

Atkins, May and Saunderson belonged to a new generation of Detroit area black youth who grew up accustomed to affluence. “My grandfather worked at Ford for twenty years, he was like a career auto worker,” says Atkins. “A lot of the kids and the grand-kids that came up after this integration, they got used to a better way of living. It’s funny that Detroit is now one of the most depressed cities in America, but it’s still the city

that has the most affluent blacks in the country. If you had a job at the plant at this time, you were making bucks. And it wasn't like the white guy standing next to you is getting five or ten dollars an hour more than you. Everybody was equal. So what happened is that you've got this environment with these kids that come up somewhat snobby, 'cos hey, their parents are making money working at Ford or General Motors or Chrysler, been elevated to a foreman, or even elevated to get a white-collar job." The Europhilia of these middle-class black youths, says Atkins, was part of their attempt "to distance themselves from the kids that were coming up in the projects, in the ghetto."

Eddie Fowlkes – soon to become the fourth member of the Belleville clique, despite being from a rougher area of Detroit – remembers that kids from the posher West Side of Detroit "were more into slick clothes and cars, 'cos the West Side kids had more money than the kids on the East Side. They had more opportunity to travel, get books, and get things. They were into stuff like Cartier and all the shit they read about in *GQ*. So you had black kids on the West Side dressing like *GQ*, and it all kind of snowballed into a scene, a culture." According to Jeff Mills – a ruling DJ-producer in the nineties, but then in his last year of high school – *American Gigolo* was a hugely influential movie on these Euro-fashion-obsessed black youth, just for the chic lifestyle of Richard Gere's lead character, his massive wardrobe of scores of shirts and shoes.

One expression of this upwardly mobile subculture was clubs and dance music. But these weren't nightclubs but high-school social clubs with names like Snobs, Brats, Ciabattino, Rafael, Charivari; the latter was named after a New York clothing store, and is alleged to have made the first Detroit techno track, titled "Sharivari." These clubs would hire spaces and throw parties. "They were obsessed with being *GQ* down, and with Italian 'progressive' music – Italian disco, basically," says Carl Craig, another early acolyte of May and Atkins. Dubbed "progressive" because their music stemmed from Giorgio Moroder's synth-and-drum-machine-based Eurodisco, rather than from the symphonic Philly sound, Italian artists like Alexander Robotnik, Klein and MBO and Capricorn filled the gap left by the death of disco in America. On the Detroit dance party circuit, you would also hear electro-funk from New York, labels like West End and Prelude, artists like Sharon Redd, Taana Gardner, the Peech Boys and Was (Not Was); English New Romantic and European synth-pop artists like Visage, Yello, Telex, Yazoo, Ultravox; and American New

Wave from The B52's, Devo and Talking Heads. "Man, I don't know if this could happen nowhere else in the country but Detroit," laughs Atkins. "Can you imagine three or four hundred black kids dancing to 'Rock Lobster'? That shit actually happened in Detroit!"

Another factor that shaped Detroit youth's Europhile tastes was the influential radio DJ Charles Johnson, "the Electrifyin' Mojo," whose show "The Midnight Funk Association" aired every night on WGPR (the first black FM station in the city) through the late seventies and early eighties. Alongside P-Funk and synth-driven tracks by Prince like "Controversy," Mojo would play Kraftwerk's "Tour de France" and other Euro electro-pop. Every night, Mojo would do his Mothership spiel, encouraging listeners to flash their headlights or bedroom lamp so that the intergalactic craft would know where to touchdown. "He had the most magnanimous voice you ever heard," remembers Derrick May. "This guy would just overpower you with his imagination. You became entranced by the radio. Which is something I have not heard since, and will probably never hear again."

Around 1980, Atkins and May started making tentative steps towards becoming DJ's themselves. "Juan and I started messing around with our idea of doing our own personal remixes, as a joke, using a pause button, tape deck, and a basic turntable. Just taking a record and pausing it up, doing edits with the pause button. We got damn good at it. That led to constant experimentation, constantly freaking out, trying all kinds of crazy shit. And Juan thought, 'Damn, man, let's go to the next level, let's start up our own DJ company.' We found a guy who owned a music studio, a sort of rental place, hiring out gear. And he was nice enough to give us a room in back and set up a pair of turntables and speakers, and let us just have hours. Didn't charge us a dime! In that room, Juan would teach me how to mix. I remember the two records I learned how to mix with: David Bowie's 'Fashion' and Edwin Birdsong's 'Rapper Dapper Snapper.' I had to mix those records for weeks, with Juan, like, in my ass, every time I fucked up!"

Calling themselves Deep Space Soundworks, Atkins and May played their first DJ engagement in 1981, at a party thrown by a friend of Derrick's, as warm-up for Detroit's most famous DJ, Ken Collier. "It was packed, but nobody was dancing," remembers May. "We were spinning 45's [7-inches] and we didn't even have slipmats on the turntable. Collier took over, and man, the dancefloor filled in 2.2 seconds. It was the most embarrassing, humbling experience of our lives!"

In the early eighties, Detroit had a huge circuit of parties, and the competition amongst the forty or fifty DJ's in town was fierce. Every weekend, there were several parties, often organised around concepts (for instance, everyone wearing the same colour).

"Everywhere you went you had to be on your shit, because Detroit crowds were so particular, and if you really weren't throwing down or you had a fucked-up mix, people would look at you and just walk off the dancefloor. And that's how we developed our skills, 'cos we had no room for error. These people wouldn't accept it. In Detroit, a party was the main event. People would go out and get new clothes for this shit." May and Atkins applied the same kind of theoretical intensity to the art of mixing and set-building that they'd once invested in listening to records. "We built a philosophy behind spinning records. We'd sit and think what the guy who made the record was thinking about, and find a record that would fit with it, so that the people on the dancefloor would comprehend the concept. When I think about all the brainpower that went into it! We'd sit up the whole night before the party, think about what we'd play the following night, the people who'd be at the party, the concept of the clientele. It was insane!"

Eventually Deep Space got into throwing their own parties. "We'd rent, like, a pub, and turn the pub into a club," remembers Eddie Fowlkes, by then a member of the DJ team. "The first place we threw a party was, I think, Rosko's, which was like a pinball joint. What you tried to do is bring the people into a different place, where they couldn't even imagine somebody having a party. And when we started doing that, everybody in Detroit started doing offbeat shit. It was like 'Damn, I used to eat lunch here with my Mom and now I'm partying here!'"

Eventually, the social club party scene got so successful that the GQ kids found that an undesirable element began to turn up: the very ghetto youth from the projects that they'd put so much energy into defining themselves against. That was when the clubs started putting the phrase "no jits" on the flyers: "jit" being short for "jitterbug," Detroit slang for ruffian or gangsta.

"They would put 'no jits allowed'," says May, "but how you gonna tell some 250 pound roughneck, standing about six foot four, 'you're not coming to my party' - when you're some little five foot two pretty boy? I don't think so! He's coming in! It was a hope that they wouldn't come! It was to make them feel unwanted. And that was when the scene started to self-

destruct. West Side kids and the whole elite high school scene, the elitist people that lived in certain areas, they just wanted to keep this shit to themselves. Then other people said 'I like that too, I wanna come' and those elitists decided they didn't want 'em there, and that was wrong. It was the beginning of the end. That's when the guns started popping up at the parties, and fights started happening. By '86, it was over."

Prior to forming Deep Space, Juan Atkins had already started making music as one half of Cybotron. Studying music and media courses at Washtenaw Community College in Ypsilanti, Michigan, he befriended a fellow student called Rick Davis. Quite a bit older than Atkins, Davis was an eccentric figure with a past: in 1968, he'd been shipped out to Vietnam just in time to experience the Tet offensive.

"Once you got to know Rick, he was like a big teddy bear," remembers Atkins. "But if you didn't know him, he could come off somewhat foreboding. Rick was a Viet vet. He was *there*, man - in the jungle. He told me stories where he's been in situations where he saw his best mate get ate by a tiger, or where he was going through the bush, shots rang out, and everybody in the platoon got wiped out but him. That's got to do something to you, mentally." Davis and Atkins discovered they had interests in common - science fiction, futurologists like Alvin Toffler, and electronic music. Prior to Cybotron, Davis had done experimental tracks on his own, like "The Methane Sea." But like a lot of Viet vets, Davis also had a heavy acid rock background; he was a huge fan of Hendrix.

Although both Atkins and Davis shared instrumental duties and contributed lyrics and concepts, Atkins' focus was on "putting the records together," making Cybotron music work as dance tracks. Davis handled a lot of the "philosophical aspects" of what was a highly conceptual project. He'd cobbled together a strange personal creed out of Alvin Toffler's *The Third Wave* and Zohar, the "Bible" of classical Jewish Kabbalah. The gist of it was that, through "interfacing the spirituality of human beings into the cybernetic matrix," you could transform yourself into a supra-human entity.

In line with Zoharian numerology, Davis changed his name to 3070; when a third member, guitarist John Howesley, joined Cybotron, he was designated John 5. Atkins and Davis devised their own technospeak dictionary, *The Grid*. "This was a time when the video-game phenomenon was coming in," remembers Atkins. "We used a lot of video terms to refer to real-life situations. We conceived of the streets or the environment as

being like the Game Grid. And Cybotron was considered a 'super-sprite.' Certain images in a video programme are referred to as 'sprites,' and a super-sprite had certain powers on the game-grid that a regular sprite didn't have."

Independently influenced by the same Euro sounds, Cybotron's cold, synth-dominated sound and drum-machine rhythms paralleled the electro then emerging from New York. Their first single, "Alleys of Your Mind" – released on their own Deep Space label – was playlisted by the Electrifyin' Mojo in 1981 and became a big local hit, selling around 15,000 copies in Detroit alone. The next two singles, "Cosmic Cars" and "Clear" did even better, resulting in Cybotron being signed by the Berkeley, California label Fantasy, who released the *Clear* album.

In Detroit, everybody assumed Cybotron were white guys from Europe. And indeed, apart from a subliminal funk pulsing amidst the crisp-and-dry programmed beats, there was scant evidence to hint otherwise. Davis' vocals had the Angloid/android neurosis of a John Foxx or Gary Numan, making Cybotron the missing link between the New Romantics and William Gibson's *Neuromancer*. But for all their futuristic *mise-en-scène*, the vision underlying Cybotron songs was Detroit-specific, capturing a city in transition: from industrial boom-town to post-Fordist wasteland, from US capital of auto manufacturing to US capital of homicide. Following the late sixties and early seventies syndrome of 'white flight' to the suburbs, the decline of the auto industry, and the de-gentrification of once securely middle-class black districts, Detroit's city centre had become a ghost town.

With its dominant mood of paranoia and desolation ("I wish I could escape from this crazy place," as Davis sang it in "Cosmic Cars"), Cybotron's tech-noir should have been the soundtrack to *Robocop*, the dystopian sci-fi movie set in a Detroit of the near-future. Songs like "Alleys of Your Mind" and "Techno City" were "just social commentary, more or less," says Atkins, citing "thought-control" and the "double-edged sword" of technology as Cybotron's major preoccupations. Lyrics like "enter the program/technofy your mind" and "don't you let them robotize your behind" – from the gloom-funk epic "Enter" – testify to an ambivalent investment in technology. As Atkins puts it, "With technology, there's a lot of good things, but by the same token, it enables the powers that be to have more control."

"Techno City" was inspired by Fritz Lang's vision in *Metropolis* of a fu-

ture megalopolis divided into privileged sectors high up in the sky and subterranean prole zones. According to Davis, "Techno City" was equivalent to Detroit's Woodward Avenue ghetto; the dream of its denizens was to work their way up to the cybodrome, where the artists and intellectuals lived. Again, these utopian/dystopian fantasies were just a thinly-veiled allegory of the unofficial apartheid taking shape in urban America, with the emergence of privately-policed fortress communities and township-like ethnic ghettos.

Perhaps the most extreme expression of Cybotron's ambivalent attitude to the future – half-anticipation, half-dread – was "R9," a track inspired by a chapter in the Bible's Book of Revelation. "What you have on the record is the War of Armageddon," laughs Atkins. But despite the track's jagged gouts of dissonance, hideously warped textures, and background screams for "Help!" this is no nightmare vision of the future, says Atkins. "For the people who don't have anything, any kind of change is good. There's two ways of looking at it." The fevered apocalyptic imagery climaxed in "Vision," with Davis whispering about a "vast celestial wasteland," then whimpering "I need something to believe in." [...]

The Detroit-Chicago Alliance

Detroit techno came to the world's attention indirectly, as an adjunct to Chicago house scene. When British A&R scouts came to Chicago to investigate house in 1986-1987, they discovered that many of the top-selling tracks were actually from Detroit. "We would sell ten to fifteen thousand records in Chicago alone," says Juan Atkins. "we were selling more records in Chicago than even Chicago artists. We kind of went hand-in-hand with the house movement. To a certain degree, I think we helped start *that* thing. 'Cos we were the first ones making records. Jesse Saunders came out with that record ["On and On"] maybe two or three weeks after we had "No UFO's" out, and he was the first guy in Chicago who was taking tracks.

"Chicago was one of a couple of cities in America where disco never died," Atkins continues. "The DJ's kept playing it on radio and the clubs. And since there were no new disco records coming through they were looking to fill the gap with whatever they could find." This meant Euro synth-pop, Italian "progressive" and, eventually, the early Detroit tracks. The Belleville Three quickly got to know everybody in the Chicago scene.

And they started to make the four-hour drive to Chicago every weekend to hear the Hot Mix Five – Farley “Jackmaster” Funk, Steve “Silk” Hurley, Ralphie Rosario, Mickey Oliver, and Kenny “Jammin’” Jason – spin on local radio station WBMX. “It seemed like they had mixes going on all day on the radio,” remembers Kevin Saunderson. “Me and Derrick would drive to Chicago every weekend just to hear the mix shows and be a part of the scene, see what’s going on and get new records. It was an inspiration for us. Especially once we started making records, you couldn’t keep us out of Chicago.”

Bar the odd session that May would do for Electrifyin’ Mojo, you couldn’t hear mixing on the radio in Detroit. Despite its Europhile tendencies, Detroit was always more of a funk city than a disco town. This difference came through in the music: the rhythm programming in Detroit techno was more syncopated, had more of a groove to it. House had a metronomic, four-to-the-floor beat, what Eddie Fowlkes calls “a straight straight foot” – a reference to “Farley’s Foot,” the mechanical kick drum that Chicago DJ’s like Farley “Jackmaster” Funk and Frankie Knuckles would superimpose over their disco mixes. Chicago house tended to feature diva vocals, disco-style; Detroit tracks were almost always instrumentals. The final big difference was that Detroit techno, while arty and upwardly mobile, was a straight black scene. Chicago house was a gay black scene.

Disco’s Revenge

“Disco music is a disease. I call it Disco Dystrophy. The people victimised by this killer disease walk around like zombies. We must do everything possible to stop the spread of this plague.” DJ Steve Dahl, 1979

“I don’t know that I have any objection to dancing. I just don’t do it. Sort of like sucking other men’s dicks. I don’t feel that there is anything wrong with it, but it doesn’t appeal to me.” Chicago rocker and technophobe Steve Albini, speaking in *Reactor* #8.0, 1993

Sucking, of course, was always the accusation levelled at disco. At the height of “Disco Sucks” fever in 1979, Chicago’s Comiskey Park baseball stadium was the site for a “Disco Demolition Derby,” which was organised by Detroit DJ Steve Dahl, and took place halfway through a double-header between the Chicago White Sox and the Detroit Tigers. But when the 100,000-plus records were dynamited, discophobic mobs rampaged

on to the field; the rioting, post-explosion debris and damage to the pitch resulted in the game being forfeited to the Tigers.

The “Disco Sucks” phenomenon recalls the Nazi book burnings, or the exhibitions of Degenerate Art. Modern-day spectacles of *Kultur-Kampf* like Comiskey were impelled by a similar disgust: the belief that disco was rootless, inauthentic, decadent, a betrayal of the virile principles of the true American *volk* music, rock’n’roll. Hence T-Shirts like “Death Before Disco,” hence organisations like DREAD (Detroit Rockers Engaged In The Abolition of Disco) and Dahl’s own “Insane Coho Lips Anti Disco Army.”

Discophobia wasn’t just limited to white rockers, though; many blacks despised it as a soulless, mechanistic travesty of da funk. And so the sleeve of Funkadelic’s 1979 album *Uncle Jam Wants You* bore the slogan “it’s to rescue dance music from the blahs.” Funkateer critic Greg Tate coined the term “DiscoINTELPRO” – a pun on the FBI’s campaign to infiltrate black radical organisations like the Panthers – to denigrate disco as “a form of record industry sabotage... [which] destroyed the self-supporting black band movement out of which P-Funk... grew.” In 1987, Public Enemy’s Chuck D articulated hip-hop’s antipathy to house, disco’s descendant, telling me: “it’s sophisticated, anti-black, anti-feel, the most ARTIFICIAL shit I ever heard. It represents the gay scene, it’s separating blacks from their past and their culture, it’s upwardly mobile.”

Chicago house music was born of a double exclusion, then: not just black, but gay and black. Its refusal, its cultural dissidence, took the form of embracing a music that the majority culture deemed dead and buried. House didn’t just resurrect disco, it mutated the form, intensifying the very aspects of the music that most offended white rockers and black funkateers: the machinic repetition, the synthetic and electronic textures, the rootlessness, the “depraved” hypersexuality and “decadent” druggy hedonism. Stylistically, house assembled itself from disregarded and degraded pop-culture detritus that the mainstream considered passé, disposable, un-American: the proto-disco of the Salsoul and Philadelphia International labels, English synth-pop, and Moroder’s Eurodisco.

If Düsseldorf was the ultimate source for Detroit techno, you could perhaps argue that the prehistory of house begins in Munich. Here it was that Giorgio Moroder invented Eurodisco. Setting up Say Yes Productions with British guitarist Pete Bellote, Moroder recruited Donna Summer, then singing in rock musicals like *Hair* and *Godspell*, and transformed

her into a disco ice queen. Moroder can claim three innovations that laid the foundations for house. First, the dramatically extended megamix: 1975's seventeen minute long orgasmotronic epic "Love To Love You Baby." Second, the four-to-the-floor disco pulse rhythm: Moroder used a drum machine to simplify funk rhythms to make it easier for whites to dance. Third, and perhaps most crucial, was Moroder's creation of purely electronic dance music. One of his earliest songs – "Son of My Father," a 1972 UK number one for Chicory Tip – was one of the very first synth-pop hits. But it was Donna Summer's 1977 global smash "I Feel Love" that was the real revolution. Constructed almost entirely out of synthesised sounds, "I Feel Love" had no verse or chorus laid out in advance; Summer improvised her gaseous, eroto-mystic vocals over Moroder and Bel-lote's grid-like juggernaut of percussive pulses and clockwork clicks. The result, at once pornotopian and curiously unbodied, was acid house and trance techno *avant la lettre*.

In the absence of fresh disco product, Chicago DJ's had to rework the existing material into new shapes. House – a term that originally referred to the kind of music you'd hear at The Warehouse, a gay nightclub in Chicago – was born not as a distinct genre but as an approach to making "dead" music come alive, by cut'n'mix, segue, montage, and other DJ tricks. Just as the term disco derived from the discotheque (a place where you heard recorded music, not live performances), so house began as a disc-jockey culture. In fact, it was an imported DJ culture, transplanted from New York by Frankie Knuckles, who DJ-ed at The Warehouse from 1979 until 1983.

Born in 1955, Knuckles grew up in the South Bronx. At Nicky Siano's underground dance club, The Gallery, Knuckles helped out by, amongst other things, spiking the punch with LSD and even going so far as to inject the drug into the free fruit. In the early seventies, Knuckles DJ-ed for several years – alongside another future "deep house" legend, Larry Levan – at The Continental Baths, a gay "pleasure palace," and then at SoHo. Levan was originally the first choice of the Chicago entrepreneurs who set up The Warehouse. But Levan decided to stay on in New York at SoHo, so it was Knuckles who moved to Chicago in early 1977 to take up the DJ spot. A three-storey former factory in West Central Chicago, The Warehouse drew around two thousand mostly gay and black hedonists to dance from midnight Saturday to midday Sunday. The four dollar admission was low, there was free juice and water, and the atmosphere

on the middle-storey dancefloor was intense. It was here that Knuckles began to experiment with editing disco breaks on a reel-to-reel tape recorder, reworking and recombining the raw material – Philadelphia International classics, underground club hits on the Salsoul label by the likes of Loleatta Holloway and First Choice, Moroder-beat – that would soon evolve into house.

In 1983, The Warehouse's promoters doubled the entrance fee, prompting Knuckles to quit and set up his own Friday night club, The Power Plant. The Warehouse retaliated by opening another Saturday club, The Music Box, based around a young kid from California called Ron Hardy. Playing in a rawer style than Knuckles, Hardy created an even more intense and disorientating atmosphere; using two copies of the same record, he'd stretch a track out into a Tantric eternity, teasing the audience by frustrating their anticipation of the breakdown. Unlike the Detroit scene, where drug-taking was unusual, Chicago house went hand-in-hand with stimulants and hallucinogens. People smoked pot, sniffed poppers (also known as 'rush'), and snorted cocaine. Acid was popular, because it was cheap, long-lasting and the blotters were easily concealed on your person. And some clubbers smoked 'happy sticks,' reefers dipped in angel dust (the deranging hallucinogen PCP). At the rougher and more hardcore hedonist Music Box, where it got so hot people tore their shirts off, the vibe was accordingly somewhat dark; Hardy eventually became a drug addict, and died in 1993.

With other regular parties emerging like The Loft, The Playground, and East Hollywood, competition between DJ's grew fierce. To get an edge over their rivals, DJ's would devise more complicated mixing tricks and employ special effects, like Frankie Knuckles' steam locomotive sound. Both Farley and Knuckles started to use a live drum machine to bolster their mixes and make the experience more hypnotic; Knuckles is said to have bought his Roland TR-909 beat-box from Derrick May. The stomping four-to-the-floor kick-drum would become the defining mark of house music. Other elements – hissing hi-hat patterns, synthetic hand-claps, synth-vamps, chiming bass-loops, drum rolls that pushed the track to the next plateau of pre-orgasmic intensity – emerged when Chicagoans started making records to slake the DJ's insatiable demand for fresh material. Called "tracks," as opposed to songs, because they consisted of little more than a drum track, this proto-house music was initially played by DJ's on reel-to-reel tape and cassette.

Although many have claimed the title of "first house track," most agree that the first vinyl release was Jesse Saunders' and Vince Lawrence's "On and On" (a raw, ultra-minimal version of the Salsoul classic by First Choice), which the duo put out in 1983 on their own Jes Say label. Saunders and Lawrence approached Larry Sherman, a local entrepreneur who had bought out Chicago's only record pressing plant, and asked him to press up 500 12-inches for them on trust. They promised to return within twenty minutes and pay him \$4 per disc. Not only did they come back and pay him in full, they also asked him to press another thousand copies.

Stunned by the demand for this new music in Chicago, Sherman started the Trax label, and debuted with another Jesse Saunders track, "Wanna Dance," released under the name Le Noiz. Sherman's role in the genesis of house is much disputed. Some regard him as a visionary entrepreneur who fostered the scene and provided work for the musicians in the day-to-day operations of Trax. Others accuse Sherman of pursuing short-term profit and neglecting the long-term career prospects of his artists, thereby contributing to the premature demise of the Chicago scene in the late eighties.

In the mid-eighties, though, Trax and Chicago's other leading house label DJ International played a major role not just in developing a local market for house tracks, but in getting the records distributed to other cities in America and to Europe. It was a DJ International track – Farley "Jackmaster" Funk and Jesse Saunders's "Love Can't Turn Around," a cover of an Isaac Hayes song – that became the first international house hit, making the UK Top Ten in September 1986. Propelled by a bassline made out of what sounds like a sampled tuba motif and by almost boogie-woogie piano vamps, "Love Can't Turn Around" features the fabulously overwrought histrionics of Darryl Pandy, whose hyper-melismatic vocals are the missing link between gospel and gender-bending male-diva Sylvester, the disco star responsible for "You Make Me Feel (Mighty Real)."

Other hits followed in early 1987: "Jack The Groove" by Raze (actually from Washington DC) got to Number Twenty in the UK, and Steve "Silk" Hurley's "Jack Your Body" was a number one smash in January. But by the middle of that year, house seemed to be petering out like any other clubland fad. The self-reflexive song-titles, which usually involved the words "house" and "jack" (the Chicago style of palsied dancing), seemed to place house firmly in the pop tradition of dance crazes like the twist and the mashed potato, novelties with in-built obsolescence. House's dep-

Minimalism A movement whose origins are generally situated in the early 1960's in John Cage's indeterminate works and La Monte Young's music. Minimal music is characterised by its extremely pared-down means, striving for great formal sobriety. The concept of minimal music developed in the 1970's through the works of such composers as Terry Riley, Steve Reich and Philip Glass. They found in minimalism the source for their "repetitive" music, marked by techniques of progressive variation, using basic sound elements, generating rhythmic formulae often crisscrossed by a steady pulsation. This movement always maintained close-knit ties with the visual arts, and parallels can be established between musical minimalism and the work of such artists as Sol LeWitt, Donald Judd and Richard Serra in particular. The work of the minimalists seems to have exerted a considerable influence on the emergence of musical forms from the "technosphere."

Modulation The process of moving seamlessly from one key to another, without any rupture in the melody or the succession of chords.

Plug-in Extension module. Software included with an application, making it possible to add complementary functions, such as filters or special features, onto digital mixing sound software.

Plunderphonics Term invented by John Oswald to describe the practice of appropriating or "plundering" sound from a variety of sources by means of a sampler or a sequencer. The plunderphonic is often assimilated with a critical practice based on the radical misappropriation of works, whose initial codes are utterly transformed after treatment. One might point to John Oswald's piece "Dab," a plunderphonic derivation of Michael Jackson's "Bad."

Process A compositional approach based upon the dynamic development of sound or visual phenomena, without any intention of creating a finished structure. Both in music and in the visual arts, this mode of creation generates open works of diversified forms, in which the preponderance of the aesthetic object takes second place to its temporal development.

Rave A techno gathering around a group of DJ's or sound systems in uncustomary places. Originating in the United Kingdom, these gatherings developed toward the end of the 1980's, in parallel to the popularisation of acid house, of which they became the privileged vehicle and place of expression. Seeking new modes of distribution for "their" music, ravers left the English clubs and the weighty legislation which frames their activities (including a Criminal Justice Bill whose aim is to forbid raves) for the countryside and suburbs, in particular in London, along the M25 motorway.

Remix The reinterpretation of a piece through the use of its characteristic elements, which are reinserted back into a new creation (the remix), generally with the help of a sampler. The remix uses sequences directly imported from the original piece, associated with other pieces specifically created by the remixer; it is this direct contribution which distinguishes it from "covers," in which the original piece is replayed in its entirety.

Sampler A device used by musicians where recorded sounds (samples) can be stored in digital form: sounds of traditional acoustic instruments, natural sounds, all kinds of noises, or small musical excerpts. By linking this device to a control keyboard through a MIDI interface, it is possible to modify the base sample and to replay it at variable pitches and speeds, the sampler taking charge of extrapolating numerically the relative pitch of the sounds in relation to the original sample. The appearance of samplers had a considerable impact on the musician's trade (cutting production costs, replacing musicians for certain operations) as well as on musical aesthetics, as regards both "highbrow" and "popular" music.

Scratch A technical procedure consisting of producing tones by using a record placed on the vinyl turntable, upon which an oscillating movement is imposed, generally synchronised with that of the crossfader on the mixing board.

thless doggerel (funktional catchphrases like "work your body," "move your body," "let's rock") and sonic gimmicks (the stutter effect often put on vocals) were impressively post-human and depersonalised, but quickly became irritating. At the time, I remember commenting in a singles review column that house had proved itself a lame duck; compared with hip-hop, there didn't seem much of a future for it. I was dead wrong, of course, as wrong as a boy can be, for what we'd heard so far was only the tip of the iceberg. As for house having much of a future... house *was* the future.

New Jack City

"Love Can't Turn Around" and "Jack Your Body," early house's two biggest hits, each represented a different side of house: songs versus tracks, a rhythm-and-blues-derived tradition of soul-full expression versus depersonalised functionalism. From my point of view, it's the "tracks" that ultimately proved to be the most interesting side of house culture. The songful style of "deep" house rapidly collapsed into an affirmation of traditional musicianly values and uplifting humanist sentiments. But "jack tracks," and the "acid tracks" that followed them, honed in on a different potential latent within disco: jettisoning all the residues of soul and humanity, this was machine-music without apology, machine-made music that turned you into a machine. Its mind-nullifying repetition offered liberation through trance-dance.

In many ways, house seemed like a flashback to the white avant-funk and experimental electronic music of the early eighties, when post-punks in England and New York turned to black dance styles as the way forward. Generally, with the exception of Talking Heads and PiL, avant-funk never had much impact in its own day. But, in a sort of 'every dog will have its day' syndrome, many of the avant-funksters enjoyed substantial success when they reinvented themselves as key members of the first wave of British home-grown house. A Certain Ratio's Simon Topping teamed up with another Mancunian avant-disco veteran, Quando Quango's Mike Pickering, to record the Brit-house favourite "Carino" as T-Coy; Pickering went on to lead the hugely popular but more songful M. People. Cabaret Voltaire's Richard H. Kirk reappeared as Sweet Exorcist, 400 Blow's Tony Thorpe purveyed UK acid house as Moody Boys, Biting Tongues' Graham Massey became the musical brains behind 808 State.

Perhaps the most prophetic of the early eighties avant-funk outfits was Düsseldorf's D.A.F., who began as an experimental industrial unit, then stripped down their chaotic sound to a harsh, homo-erotic avant-disco influenced by the New Savagery ideas of artist Joseph Beuys. On their three albums for Virgin, *Alles Ist Gut*, *Gold Und Liebe* and *Für Immer*, the inelastic synth-pulses and frigid frenzy of the beats are uncannily pre-emptive of acid house. D.A.F. were stripped down lyrically as well as musically. Tracks like "Mein Hertz Macht Bum [My Heart Goes Boom]" and "Absolute Bodycontrol" offered sexmusic shorn of romantic mystique and rendered in clinical, cardiovascular language, while "Der Mussolini" (chorus: "dance der Mussolini ... dance der Adolf Hitler") put a twisted spin on the standard avant-funk obsession with control.

D.A.F. and the similar group Liaisons Dangereuses actually had some currency in the early Chicago scene. Their sinewy sound embodied an idea – the dancefloor as a gymnasium of desire, liberation achieved through submission to a regime of strenuous bliss – that was a latent content of gay disco's erotics. As Walter Hughes notes, songs like Village People's "Y.M.C.A." and "In The Navy" used "the language of recruitment and evangelism" to bring out the homo-erotics of discipline, while the lyrics of disco songs often represented love in the imagery of "enslavement, insanity, or addiction, a disease or a police state."

As house music evolved, this idea – freedom achieved by abandoning subjectivity and self-will, the ecstasy of being enthralled by the beat – became more explicit. Gradually, the hyper-sexual imagery was supplanted by a post-sexual delirium, reflected in the Chicago dancing style known as "jacking." In disco, dance had gradually shed its role as courtship ritual and opened up into what Hughes calls "increasingly unpaired, unchoreographed" freestyle. Jacking took this to the next stage, replacing pelvic-thrust and booty-shake with a whole-body frenzy of polymorphously perverse ticks and convulsive pogo-ing.

Etymologically, "jack" seems to be a corruption of "jerk," but also may have some link to "jacking off." The house dancefloor suggests the circle jerk, a spectacle of collective auto-eroticism, sterile *jouissance*. "Jacking" also makes me think of jacking into an electrical circuit. Plugged into the sound-system, the jacker looks a bit like a robot with epilepsy (itself an electrical disorder of the nervous system). In jack tracks like Fast Eddie Smith's "Jack To The Sound" and Secret Secret's "We Come To Jack," lyrics are restricted to terse commands and work-that-body exhorta-

tions. Eventually, acid house bypassed verbals altogether and proceeded to what felt like direct possession of your nervous system via the bass-biology interface.

Robotnik vacancy, voodoo delirium, whirling dervishes, zombiedom, marionettes, slaves-to-the-rhythm: the metaphors that house music and "jacking" irresistibly invite all contain the notion of becoming less-than-human. Other aspects of the music exacerbate the sense of attenuated selfhood. With a few exceptions, house singers tend to be ciphers, their vocals merely plastic material to be manipulated by the producer. In early house, the vocals were often garbled, sped-up and slowed down, pulverised into syllable or phoneme-size particles, and above all subjected to the ubiquitous, humiliating stutter-effect, whereby a phrase was transformed on the sampling keyboard into a staccato riff. Ralphie Rosario's classic "You Used To Hold Me" divides into two distinct halves. At first, diva Xavier Gold is in the spotlight, putting in a sterling performance as the cynically materialistic and vengeful lover. Then Rosario takes control, vivisectioning Gold's vocal so that stray vowels and sibilants bounce like jumping beans over the groove, and transforming one syllable of passion into a spasmodic Morse code riff.

House makes the producer the star, not the singer. It's the culmination of an unwritten (because unwriteable) history of black dance pop, a history determined not by sacred cow auteurs but by producers, session musicians and engineers – backroom boys. House music takes this depersonalisation further: it gets rid of human musicians (the house band that gave Motown or Stax or Studio One its distinctive sound), leaving just the producer and his machines. Operating as a cottage factory churning out a high turnover of tracks, the house producer replaces the artist's signature with the industrialist's trademark. Closer to an architect or draughtsman, the house auteur is absent from his own creation; house tracks are less like artworks, in the expressive sense, than vehicles, rhythmic engines that take the dancer on a ride.

As well as being post-biographical, house is post-geographical pop. If Chicago is the origin, it's because it happens to be a junction point in the international trade routes of disco. Breaking with the traditional horticultural language we use to describe the evolution of pop – cross-pollination, hybridisation – house's "roots" lie in deracination. The music sounds inorganic: machines talking to each other, in an unreal acoustic space. When sounds from real-world acoustic sources enter house's pleasuredome,

they tend to be processed and disembodied – as with the distortion and manipulation inflicted upon the human voice, evacuating its soul and reducing it to a shallow effect.

But this is only one side of house culture: the machine-music side that evolved from jack tracks to acid house, music that's all surface and post-human intensity. Just as important was the humanist, uplifting strain of "deep house" that affiliated itself to the R&B tradition: songs like Sterling Void's "It's All Right," Joe Smooth's "Promised Land" and his album *Rejoice*. Combining Philly's silky symphonic strings and mellifluous vocals with gospel's imagery of salvation and succour, this strain of house was sufficiently worthy and wholesome to win over English soul boys such as Paul Weller and his fanboy clone Doctor Robert (formerly of The Blow Monkeys). Weller actually covered "Promised Land" in early 1989.

In house, there's a divide between finding yourself (through becoming a member of the house) and losing yourself (in solipsistic hallucinatory bliss). The split in house between finding an identity/expressing your self and losing self/losing control could be mapped on to the tension in gay culture between the politics of pride, unity and collective resilience, and the more hardcore "erotic politics" of impersonal sexual encounters, "deviant" practices and drugs. House offered a sense of communion and community to those who might have been alienated from organised religion because of their sexuality. And so Frankie Knuckles described The Warehouse as a "church for people who have fallen from grace," while another house pioneer, Marshall Jefferson, likened house to "old-time religion in the way that people just get happy and screamin'." Male divas like Darryl Pandy and Robert Owens had trained in church choirs.

In "deep house," the inspirational lyrics often echo the civil rights movement of the sixties, conflating the quest for black civic dignity with the struggle for gay pride. Joe Smooth's "Promised Land" and Db's "I Have A Dream" both explicitly evoke Martin Luther King; the first promises "brothers, sisters, one day we'll be free," the latter dreams of "one house nation under a groove." The Children's "Freedom" is a fraught plea for tolerance and fraternity. The spoken-word monologue beseeches "don't oppress me" and "don't judge me," and asks, bewildered and vulnerable: "can't you accept me for what I am?" The name "The Children" comes from Chicago house slang: to be a "child" was to be gay, a member of house's surrogate family. "Step-child" was the term for a straight person accepted by gays.

In other house tracks, religious and sexual rapture are fused in a kind of Gnostic eroto-mysticism. Jamie Principle's "Baby Wants To Ride" begins with a prayer from Principle, and then the Voice of God declaring that it's time to relate "the Revelation of my Second Coming." But the "coming" is revealed to be decidedly profane: an encounter with a dominatrix, who strips him and makes him beg on bended knees, then rides him through a porno-copia of sexual positions. Principle revels in the passivity of being a plaything, a (sexual) object, feyly gasping: "She took me... She made me scream." A Prince-obsessed androgyne, Principle – née Byron Walton – told *Melody Maker*: "Men always want their women to scream when they're having sex. But the men aren't meant to scream or wouldn't admit to doing it. But I can't accept that male role. If a woman makes a man scream, I think that's just as important, just as much a success. If I want to scream, I scream." Not content with blasphemously conflating SM with the Book of Revelation, "Baby Wants To Ride" adds politics to the liberation theology: Principle exhorts the South African government to set his people free, disses AmeriKKKa as a "bullshit land," and complains it's hard to ride "when you're living in a fascist dream."

In Fingers Inc's "Distant Planet," this longing for sanctuary from racial and sexual oppression takes the form of cosmic mysticism, à la Sun Ra. The distant planet is a place "where anyone can walk without fear"; if you're treated like an alien, you wanna go where the alien feels at home. Eerie and trepidatious, the track has a mood of desolate utopianism. The musical brains behind Fingers Inc, Larry Heard, is an interestingly conflicted house auteur. With its nimble-fingered fluency and over-melismatic Robert Owens vocals, most Fingers Inc output reflects Heard's background as a jazz/R&B drummer and keyboardist reared on fusion and progressive rock (George Duke, Mahavishnu Orchestra, Return to Forever, Genesis, Rick Wakeman). Songs like "Mysteries of Love," "Another Side" and "A Path" are the electro-blues of a seeker. Heard declared: "Jack means nothing to me." But ironically, his most thrilling music took the form of the brutally dehumanised and machinic tracks – "Amnesia (Unknown Mix)" and "Washing Machine" – he released under the alias Mr Fingers. "Washing Machine" – an interminable brain-wash cycle of burbling bass-loops and jarringly off-kilter hi-hats – is a mantra for a state of mindlessness.

Paradise Lost

By 1988, house music was having a massive impact in Britain and Europe, but Chicago itself was in decline. The previous year, the authorities had begun to crack down on the house scene, with the police banning after-hours parties and withholding late-night licences from clubs. WBMX went off the air in 1988, and sales of house records slowed, eventually dwindling down to an average of 1500 copies, a mere tenth of sales at Chicago's peak. Many of the scene's prime movers became inactive, disillusioned by bad deals. Others spent most of their time in Europe, where financial prospects were better. Some left town for good. Frankie Knuckles moved back to New York. And DJ Pierre moved to New Jersey in 1990, and became a major exponent of New York's song-oriented deep house sound, "garage."

Garage's roots go back to New York's early seventies disco underground. Mostly gay black and gay Hispanic, this scene characterised by a bacchanalian fervour was fuelled by acid, amphetamine and the Ecstasy-like downer Quaalude. It was in this milieu – clubs like The Gallery, Salvation, Sanctuary, The Loft, The Ginza, and DJ's like Francis Grosso, David Rodriguez, Steve D'Aquisto, Michael Cappello, David Mancuso – that Frankie Knuckles and his colleague Larry Levan learned the art of mixing. Garage is named in homage to the DJ-ing sensibility and sensurround ambience Levan developed at his legendary club The Paradise Garage, but as a style, it only really took shape after the club shut its doors in late 1987.

The Paradise Garage opened in January 1977, and was named after its location: an indoor parking lot in SoHo. Like Chicago's Warehouse, the Saturday night clientele was gay (the club's Friday night was mixed straight and gay). Philly and Salsoul were the soundtrack, with the songs gospel-derived exhortations to freedom and fraternity creating a sort of pleasure-principled religious atmosphere. John Iozia described the Garage as both pagan ("an anthropologist's wet dream ... tribal and totally anti-Western") and ecclesiastical (the dancefloor was a fervent congregation of "space-age Baptists"). Just as regulars used to call The Gallery "Saturday Mass," and Salvation was styled as a cathedral, so Garage veterans regarded the club as "their church." The young Larry had in fact been an altar boy at an Episcopalian Church, while the Bozak DJ-mixer he used at the Garage was modelled on an audio-mixer that the manufacturer had originally developed for church sound-systems.

Levan was one of the very first examples of the DJ-as-shaman, a techno-mystic who developed a science of total sound in order to create spiritual experiences for his followers. Working in tandem with engineer Richard Long, he custom-built the Garage's sound-system, developing his own speakers and a special low-end intensive subwoofer known as Larry's Horn. Later, during his all-night DJ-ing stints he would progressively upgrade the cartridges on his three turntables, so that the sensory experience would peak around 5 a.m. And during the week, he would spend hours adjusting the positioning of speakers and making sure the sensurround sound was physically overwhelming yet crystal clear. Garage veterans testify that the sheer sonic impact of the system seemed to wreak sub-molecular changes in your body.

Alongside pioneering the DJ-as-shaman's "technologies of ecstasy," Levan was also an early DJ-producer. He remixed classics like Taana Gardner's "Heartbeat" and Class Action's "Weekend," and co-founded The Peech Boys with synth-player Michael deBenedictus and singer Bernard Fowler. The band's ambient-tinged post-disco epics like "Don't Make Me Wait" and "Life is Something Special" are notable for their cavernous reverberance and dub-deep bass. Peech Boys were on the cutting edge of the early eighties New York electro-funk sound, alongside acts like D-Train, Vicky D, Rocker's Revenge, Frances Joli and Sharon Redd, labels like West End and Prelude, and producers such as Arthur Baker, John Robie, François Kevorkian, and John "Jellybean" Benitez.

Another figure who played a key role in building a bridge between electro-funk and garage was Arthur Russell. An avant-garde composer and cellist who once drummed for Laurie Anderson and nearly became a member of Talking Heads, Russell experienced an epiphany at Siano's Gallery, where he was struck by the parallels between disco repetition and the New York downtown minimalism of Philip Glass *et al*, and was overwhelmed by the immersive quality of music transmitted over a gigantic sound-system. Thereafter his career straddled two sides of New York's downtown: avant-garde minimalism and disco-funk. Russell's 1980 Loose Joints track "Is It All Over My Face" was a Paradise Garage favourite. In 1982, he co-founded the Sleeping Bag label with Will Socolov, and released the surrealistic and dub-spacious "Go Bang No. 5" as Dinosaur L. Infatuated with the ocean (he sometimes used the tag Killer Whale as a writing credit, and as Indian Ocean, he released brilliant proto-house tracks like "Schoolbells" and "Treehouse"), Russell was obsessed with

echo. His major complaint about most dancefloor fodder was its "dryness" (its lack of reverb), and he recorded an album of cello-and-slurred-vocal ballads called *The World of Echo*. But his all-time masterpiece of oceanic mysticism was the polyrhythmically perverse "Let's Go Swimming."

If one word could sum up the garage aesthetic, it's "deep"; hence tracks like Hardrive's "Deep Inside," and band names like Deep Dish. "Deep" captures the most progressive aspect of garage (its immersive, dub-inflected production) but also its traditionalism (its fetish for songs and classy diva vocals, its allegiance to soul and rhythm and blues, its aura of adult-oriented maturity). Of all the post-house, post-techno styles, garage places the most premium on conventional notions of musicality. Garage has little truck with the rhetoric of futurism; samplers and synthesisers are used for economic reasons, as a way of emulating the opulent production values and sumptuous orchestral arrangements of Philly, Salsoul and classic disco.

After the Garage's demise in late 1987 and Larry Levan's decline into drug abuse and ill-health, the spirit of garage was preserved at clubs like The Sound Factory, Better Days and Zanzibar, by DJ's like Junior Vasquez, Bruce Forrest, Tee Scott, and Tony Humphries. In the nineties, DJ-producers like Vasquez, Masters At Work, Roger Sanchez, David Morales, Benji Candelario, Danny Tenaglia, Erick Morillo and Armand Van Helden kept the flame alive. In Britain, garage thrived as a kind of back-to-basics scene for sophisticates who'd either outgrown rave or had always recoiled aghast from its juvenile rowdyism. In South London, the Ministry of Sound modelled itself on the Paradise Garage, creating an ambience of upwardly mobile exclusivity and priding itself on having the best sound-system in the world (a claim that has not gone undisputed).

In the late eighties, the two labels that did most to define the nascent garage sound were Nu Groove and Strictly Rhythm. Started in August 1988 by Frank and Karen Mendez (respectively an ex-DJ and a music researcher on radio station Hot 103), Nu Groove's slinky, jazz-inflected house was infused with a subtle artiness and an absurdist sense of humour, reflected in the band names and song titles: NY Housin' Authority's "The Projects" and its sequel "The Apartments," Lake Eerie's "Sex 4 Daze." Many important New York house producers recorded for Nu Groove: Lenny Dee and Victor Simonelli (as Critical Rhythm), Joey Beltram (as Code 6 and Lost Entity), Ronnie and Rheji Burrell, Kenny Gonzalez.

Strictly Rhythm was where DJ Pierre ended up working as an A&R director and developed his "fractal" Wild Pitch production style – based around tweaking EQ levels, using filtering effects and constantly adjusting levels in the mix – as heard on classics like Photon Inc's "Generate Power" and Phuture's "Rise From Your Grave." With its sultry percussion, skipping, syncopated snares and surging, butt-coercive basslines, the Strictly Rhythm sound – as shaped by producers like Roger Sanchez and Kenny "Dope" Gonzalez & "Little" Louie Vega – was more hard-driving and feverish than Nu Groove's (whose tracks were often so refined-sounding they verged on penthouse muzak). Early Strictly Rhythm is also notable for the brimming, aqueous production on tracks like House 2 House's "Hypnotize Me (Trance Mix)," all gulfstream currents of blood-temperature synth and bubble trails of mermaid-diva vocal. The atmosphere on "Hypnotize Me" and similar tracks like After Hours' "Waterfalls (3 a.m. Mix)" is condensation-stippled post-coital languor, a balmy plateau of serene sensuality. Combined with the humidity of a club environment, the effect is subaquatic or intra-uterine.

Working together as Masters At Work and Sole Fusion, and separately under a plethora of pseudonyms, Kenny "Dope" Gonzalez & "Little" Louie Vega went on to become probably the most famous of the New York house production teams. The Masters At Work name was a gift from Todd Terry, who'd used it for his early tracks "Alright Alright" and "Dum Dum Cry." Terry is most famous for developing a strain of New York "hard house" that was far tougher and rawer than garage. Instead of symphonic disco, this sound was rooted in electro, old skool hip-hop and the brash, crashing electro-funk style known as Latin Freestyle.

Alongside Terry, the pioneers of this New York hardcore house style were Nitro Deluxe. Their 1987 track "This Brutal House" had a huge impact in Britain, and eventually made the Top Thirty in early 1988 as a remix, "Let's Get Brutal." Glassy and glacial, "This Brutal House" is the missing link between the mid-eighties New York electro of Man Parrish and the early nineties British rave style "bleep-and-bass." The track is a vast drumscape of seething Latin percussion and distant snare-crashes on the horizon of the mix, underpinned by sub-bass that has the floor-juddering impact of dub reggae. The only element that connects "This Brutal House" to the sounds coming out of Chicago is the eerie vocal effects: a human cry is played on the sampling keyboard like a jittery trumpet ostinato, then arpeggiated into what sounds like Tweety Bird sing-

ing scat. Nitro Deluxe's follow-up "On a Mission" is even more despotic in its vivisection of the human voice. The "Say Your Love" mix puts the word "say" through a digital mangler, shattering it into a pandemonium of pitch-bent whimpers, hiccups, bleats and oinks; the "Closet Mission" mix multitracks and varispeeds the syllable into a cyclonic swirl of phoneme-particles that sounds like an aviary on fire, then rapid-fires a stream of 94 r.p.m. micro-syllables like electrons from a cathode ray tube.

Todd Terry's own style was a bridge between the cut-up collage tracks of Mantronix and the sample-heavy house soon to emerge from Britain. Terry is a no-nonsense, whack-'em-out, I-wanna-get-paid-in-full kind of guy; he's described himself as "more of a trackmaster ... I'm not a writer of songs, they're too much trouble. Plus you make twice the money off of tracks, [because] they're quicker." Lacking both the artistic pretensions of the Detroit aesthetes and the soul-affiliated spirituality of the deep house and garage producers, Terry has proved that mercenary motives can result in great popular art like Royal House's "Can You Party" and "Party People," Orange Lemon's "Dreams of Santa Anna," Black Riot's "A Day In The Life" and CLS's "Can You Feel It?"

Terry's roots in hip-hop block parties come through in early tracks like Black Riot's "A Day In The Life" and the pre-Vega/Gonzalez Masters At Work outings "Dum Dum Cry" and "Alright Alright": the sound is all jagged edits and stabs, scratch FX, toytown melody-riffs, sampler-vocal riffs à la The Art of Noise, blaring bursts of abstract sound, depth-charge bass and breakbeats. That rough-and-ready, thrown-together quality also characterises Royal House's "Can You Party," a UK number fourteen hit in October 1988. With its "Can you feel it?" invocations, sirens, and bursts of mob uproar (cunningly designed to trigger a feedback loop of excitement in the crowd), "Can You Party" anticipates the rabble-rousing hardcore rave anthems of the early nineties. Basically a rewrite of "Can You Party," "Party People" intensifies the palsied atmosphere until the very air seems to be trembling with some intangible fever. The track turns around a Morse Code riff seemingly made out of heavily reverbed piano or audience hubbub, a riff that seems to possess your nervous system like digital epilepsy, inducing strangely geometric convulsions. Like much of Terry's work, the track is jarring because it's like a series of crescendos and detonations, a frenzy of context-less intensities without rhyme or reason.

With their jagged edges and lo-fi grit, Terry's cut-and-paste tracks were a world away from garage's polished production and smooth plateaux of

pleasure. On the Royal House album, Terry used funky breakbeats and jittery electro beat-box rhythms as well as house's four-to-the-floor kick drum. Terry's sound was hip house, a hybrid sub-genre that was simultaneously being reached by Chicago producers Tyree and DJ Fast Eddie. Tyree told me in early 1988 that he was already working on a fusion of house and rap: "At my parties, I mix house tracks with hip-hop records on 45 r.p.m. - it makes LL Cool J sound like a chipmunk!" In early 1989, the first recorded examples of this hybrid came through. Some tracks simply layered rather feeble rapping over a house track. Others, like Fast Eddie's "Hip House" and "Yo Yo Get Funky," combined house rhythms and 303 acid-pulses with James Brown samples, sound effects, and breakbeats. Perhaps the best of the bunch was Tyree's "Hardcore Hip House," with its weird blend of funky drummer shuffle beats, house piano vamps, and Tyree rapping about how "hip house is soon to be / the giant in the industry." It wasn't, but the hybrid sound and the chant "I'm comin' hardcore" were prophetic of the breakbeat house/hardcore sound that would become the staple of the British rave scene in the early nineties.

By 1989, then, Black America had generated four distinct and full-formed genres of electronic dance music: Detroit techno; the deep house/garage sound of Chicago and New York; acid house and minimal jack tracks; breakbeat-and-sample based hip house. Transplanted to the other side of the Atlantic, each of these sounds would mutate - beyond all recognition, and through a kind of creative mis-recognition on the part of the British and Europeans.

Simon Reynolds

Note

This essay was first published in Simon Reynolds. *Energy Flash*. London: Picador, 1998.

GHOSTLINES: MIGRATION, MORPHOLOGY, MUTATIONS

KODWO ESCHUN
EDWARD GEORGE

Jamaican music is an unconditionally hybridic pop form: all its great producers work with this in mind. It is a product of the vaulting ambition of a tiny island whose independence in 1962 coincided with the idea that this former British property, shaped by chattel slavery, indentured labour and colonial rule, could invent a music which would occupy a major place on the world cultural stage.

The history of Jamaican music outside Jamaica is one of migration and mutation. Of 'black morphology,' to quote a Keith Hudson album title. The effect of a close listening to (and against) ska, reggae, lovers rock, dub, dancehall is transformative: we hear things differently (in their difference)...

For Jamaican pop's displaced acolytes, its black and white audiences and musicians in the UK and Germany, the effect of a productive listening has been a teasing out of the music's formal processes and affective states for newly indigenous sonic and cultural ends.

This history of displaced phonographia produces some interesting questions about the kinds of newness this cultural migration has produced: how did Jamaican music reterritorialise British pop music? How did it become a part of European electronic music? How did it seep into the art world? What are the key historical and sonic nodal points, intersections, scenes of intensity and high transformation in this history of proliferative fragmentation?

A timeline of this history might include the following moments...

1969-1976

We could begin with an unforeseen side effect of Caribbean settlement in post-war Britain:

Reggae is embraced by white working class youth, then by the pop mainstream. As a result, singles such as "The Return of Django" by The Upsetters is number five in the British charts; "The Liquidator" by the Harry J All-Stars infiltrates the Top Ten; Jimmy Cliff's "Wonderful World, Beautiful People" reaches number seven; Desmond Dekker's "Israelites" becomes the UK's first reggae number one.

In a five-year run from 1969 to 1975 the reggae hits continued: Marcia Griffiths and Bob Andy's cover of Nina Simone's "Young, Gifted and Black" hit the Top Ten. So did the follow-up single, "Pied Piper." As did Boris Gardiner's "Elizabethan Reggae" (a cover version of *Swan Lake*), Desmond Dekker's "You Can Get It If You Really Want," Jimmy Cliff's cover of Cat Stevens' "Wild World," Nicky Thomas's "Love of the Common People," The Pioneers' "Long Shot Kick the Bucket," The Upsetters' "Clint Eastwood" and Dandy's "Reggae in Your Jeggae."

The response of Britain's "immigrant" black community came in the form of an indigenous scene which produced its own hitmakers: Greyhound, The Pioneers, Dandy Livingstone. There was an infrastructure: a London-based maze of independent labels, sound systems and black patronage whose emergence took place against a political backdrop of racial exclusion which permeated black relations with white cultural institutions and industries. The music business and pop culture was no different.

Somewhere in this wave of chart-toppers came a single which signalled the end of the relationship that made this first wave of reggae so successful in Britain. Introduced by Bob Marley to Jamaican music visionary Clement "Coxsone" Dodd, Winston Rodney, aka Burning Spear, introduced all the musical and cultural motifs that would inform Rastafarian "roots" reggae for the next thirty years: "I and I son of the most high, Jah Rastafari. Our hearts shall correspond and beat in one harmony. Sounds from the Burning Spear. Door peep shall not enter this holy land, where wise and true man stand, sipping from the cup of peace. Chant down Babylon. Give thanks and praise to the holy man of creation."

With one mantric, bare boned single, "Door Peeper," Burning Spear inaugurated a genre that would change the content, tone and texture of the dialogue between Jamaica and Europe.

To chant down Babylon... to call for the end of the world shaped by slavery and colonial expansion, to critique the racial claims made by the founding fathers of the Enlightenment, to re-read its founding text, the Bible; to refigure Revelations' End of Time as a pop song. It was as far away from the cheerful meritocracy of "You Can Get It If You Really Want" as it was possible to get...

...to weave the children and grandchildren of former slaves into the lineage which connects King Solomon to Haile Selassie... as far away from anything in pop in 1969 at all. Led by Spear, Bob Marley and the Wailers and Lee Perry, reggae reorientated itself from the aspirational towards the secessionist, from the materialist to the mystical, from a model of American and British pop towards Africa. After a fashion: Rastafari's vision and version of Africa was rooted as much in the philosophies of Marcus Garvey, ancient Ethiopianism, and the struggles in Apartheid South Africa.

The critical popularity of Rastafarian roots reggae came as something of a shock to middle-class Jamaicans. Rasta was pretty much as low as you could go on the social scale. Its preoccupations with Africa, its assertion of a black god, its messy druggy asociality were an embarrassment. That white journalists in America and England should be at all interested was a source of bewilderment.

Suddenly Jamaican music shifted from an emblem of a conciliatory post-colonial national identity to an embarrassing violation of middle-class principles of taste. With these shifts came a corresponding adjustment in British attitudes.

Upwardly-mobile black British indie labels like Trojan had a hard time digesting Rastafarianism's refusenik tendencies. For skins it marked a turning away from a tentative inclusiveness through pop to an embattled exclusionism. Without white patronage, neither roots reggae or dub was commercially feasible. And apart from a dub number one in 1974 (Rupie Edwards' "Irie Feelings") the new Jamaican pop died a death in the mainstream of British pop culture.

1976-1979

Punk rock and the success of Bob Marley's 1976 *Live* album recorded in London changed all this. Marley's epic "No Woman No Cry" was the tipping point, installing rasta iconography into Brit-pop culture and the rasta worldview at the top of the charts.

And while Marley was becoming a British pop icon, London's nascent punk rock scene, spearheaded by deejay Don Letts, was finding affinities with reggae's apocalyptic solipsism. The bond between the Punks and the Dreads was legitimised by the Sex Pistols' Johnny Rotten, made public when Rotten spun reggae tunes (notably Dr. Alimantado's "Born For A Purpose") between Pete Hamill records on London's Capital Radio.

But it was the death of Emperor Haile Selassie in 1974 that gave roots reggae the faith-in-the-face-of-the-facts sense of gravitas around which its appeal was centred. In London the first wave of young Rastas became visible, sombre, brooding teenagers, the scourge of the media and the Metropolitan police's 'mugging' scare. Their pivotal track was "Jah Live": "Fools say in their hearts, Rasta your God is dead." True believers refused to accept that Selassie had in fact been murdered.

Co-written with Perry, released as a single on Marley's Tuff Gong label and never featured on an album, "Jah Live" and its dub B-side "Concrete" turned dub into a new sonic mysticism. The mid to late seventies were, in critical if not commercial terms, dub's greatest years.

Musician and producer Augustus Pablo released *King Tubby Meets Rockers Uptown*, an epochal album of Studio One rhythms (re)mixed by the visionary engineer King Tubby. And backed by Island Records and armed with the biggest production budget given to any JA producer of the time, Perry released *Super Ape*, the first of a run of six classic albums recorded and mixed at his Black Ark studio.

Punk groups like The Clash were drawn turn towards roots reggae's militant mysticism: Perry produced the group's *Complete Control* in London, where a new generation of British reggae groups were finding new audiences. Misty in Roots, Aswad and Black Slate played Rock Against Racism concerts next to their punk allies, with song-centred roots reggae providing the basis for a politicised anti-racism in the face of an increasingly violent neo-Nazi presence.

1979-1985

Dub provided the impetus for post-punk's sonic architecture. The quintessential example of this JA to UK mutation came in 1979 when Public Image Limited, Lydon's post-Sex Pistols group, released *Metal Box*, their second album, as three 12" records in a film canister.

But while punks were embracing dub, black British women were turning

away from it, disenchanted with the mystical, impractical attitude of roots reggae, sidelined by its masculinist imperative. As women constituted the biggest buyers of Jamaican music in black Britain, they started singing and buying records which reflected the underlying ambition of being young and British-born. They wanted to belong on terms as close to their own as possible.

Lovers rock privileged belonging intimacy over the distance of history, the joys and pains of domesticity in the here and now over the Great Historical Wound of slavery. Young black women flocked towards the new sound of lovers rock, drawing men with them, away from the dread ambience of Jah Shaka sessions and dub sound clashes.

Light up the chalice and burn down the weed, with no thought between us how we will succeed, with you boy. From 1979 to 1985 lovers rock, a critical divergence from the Jamaican reggae of the day, ruled black British parties and dancehalls. The decline of roots reggae is usually ascribed to Marley's death of cancer in 1981, the bloodbath of the run-up to Jamaican general election of 1980, and Perry's destruction of the Black Ark in 1983. But its demise in black Britain began on the dance floor. You couldn't really dance with your partner to Burning Spear; instead you stepped and kicked in a kind of combat dancing adapted from martial arts movies. Lovers rock placed female concerns, the female voice and body right at its centre.

And while black Britain was deciding it would rather go for a quiet candle-lit dinner for two than go to Zion, the multi-racial friendships punk produced were turning away from dub and began translating ska into what would become two-tone. Madness, The Selector and The Specials harked back to this earliest of Jamaican pop forms to express modern, peculiarly English political and racial tensions: the Specials' "Ghost Town" was number one during the notorious riots of 1981; their 1983 "Free Nelson Mandela" became the anthem of Britain's anti-Apartheid movement.

Jah Shaka, owner of the biggest sound system of the seventies, responded to the demise of roots music and the decline in dub by producing his own records and dubplates. But by the mid-1980's, the roots reggae fraternity had shrunk to a tiny hardcore following far removed from the mainstream of Jamaican pop, existing on the edges of black British culture for the rest of the decade.

1985-1993

By 1985 Jamaican pop's dalliance with Rastafarianism played no part in the island's music culture. The minutiae of everyday ghetto life codified through improvised lyrics became the key concern, marking Jamaica's total embrace of the broad concerns of pop as opposed to rock, with which rasta so closely dialogued.

The shift from live musicianship to low-economy digital technology provided a new sound. With King Jammy's "sleng teng" rhythm, ragga was born; with Gussie Clarke's "rumours" rhythm, the prototype of digital roots was launched. And when Shabba Ranks won two Grammy awards in the early 90's, it was clear ragga had triumphed on the world stage, realising the founding ambition of Jamaican pop.

In Europe, reggae was mainstream but troubled, thanks perhaps to hardcore ragga's overweening, obsessive sexual conservatism and increasingly ambivalent relation to black on black violence. European producers and pop audiences kept their distance following the furore around Buju Banton's homophobic "Boom Bye Bye"; "Home boy nah promote no nasty man, them haffi dead."

Hardcore ragga's unflinching amorality, its crack/cocaine-driven brutality, found a home in the UK, in London and Essex, with a new generation of DJ-producers, known as Junglists. Junglists sampled Jamaican music as much as they did American music.

But jungle slips from the dialogic time line that connects skins, punk, and two-tone to Jamaican pop because of its insistence on its repudiation of pop. This was a strictly underground affair supported by illegal pirate radio stations such as Rude FM, and the mighty Kool FM. And two-tone aside, Jamaica's reterritorialising of British pop culture brought about mutually exclusive response from black and white Britons. For all its rhythmic extremism, jungle represented a racially and sexually inclusive sense of community, its drum'n'bass innovations harking back to dub's golden years.

1993-2001

By 1993 dub had become an important resource for musicians, a means of interacting with new digital technology so enmeshed in dance culture it is difficult to understand 90's music without a dub presence. In the UK, The Orb, a duo of DJ-producer Alex Paterson and engineer Thrash, fused KLF-style ambience with Shakaesque basslines to create an ambi-

ent cosmic dub evoked in the intimate immensity of their top ten singles "Little Fluffy Clouds" and "Blue Room."

And as jungle changed to drum'n'bass in 1994, it provided an extreme counterpoint to the reduced style of Basic Channel-style electronica. In Berlin, the electronic music of Mark Ernestus and Moritz von Oswald, under the name of Basic Channel, gradually pulled away from African-American influence towards Jamaica.

Basic Channel applied Jamaican processes of dub to the rhythmic impulses and textures of Detroit techno and Chicago house to create a new sense of spatiality that focused on the microsonic dimensions of worn vinyl memory. As Chris Bohn wrote in *The Wire* no. 150, their nine singles "dissolved the distinction between recorded and realtime scratches and distortion." Each release opened up a subworld of hisses, clicks, crackles, pops and crinkles that would influence late 90's producers like Pole and Gas and early 2000's microhouse producers such as Herbert and Farben.

In 1995, Ernestus and Von Oswald closed Basic Channel and started the Chain Reaction label from their Hardwax shop, staffed by a closely-knit family of producers who sold records or cut records in the Dubplates and Mastering room. Some were duos like Porter Ricks and Monolake, most were DJ's turned producers such as Vainquer and Substance. All the outfits were German but for the London-based trio Hallucinator.

Two parts male black British, one part female Italian, Hallucinator responded to the German take on roots reggae through a prior engagement with European electronic music as well as an immersion in Jamaican pop. What post-Basic Channel electronica share is a sense of displacement from Jamaica. It is over the distance of this displacement, in the multilayered spaces that separate the sound of Kingston from the sound of Berlin, that German electronica operates.

Between 1995 and 2000, a small number of books and documentaries canonised Jamaican music. In 1995, London's Black Audio Film Collective released the *Mothership Connection* documentary, broadcast in Germany under the title *The Last Angel of History*. The film explored the sonic mythologies of Sun Ra and Parliament-Funkadelic and Lee Perry forging a new cultural context for Perry's work in the secret history of Afrofuturism.

1998 saw the publication of critic Kodwo Eshun's *More Brilliant Than the Sun: Adventures in Sonic Fiction*, while Lloyd Bradley's *Bass Culture*

and David Katz' biography *People Funny Boy, the Genius of Lee Perry*, both from 2000, legitimised Jamaican music as an indelible presence in world pop music.

Its place in pop's post-modernity was legitimised through academia, at *Loving the Alien*, the 1997 symposium hosted by critic Diedrich Diederichsen and held at the Volksbühne in Berlin, which attempted to synthesise the ideas raised in *The Last Angel of History*.

And if the canonical impulse was underpinned by an unspoken consensus that Jamaican music at its best resided in the past tense, in a dub tradition unmoored from the voice and its inescapably racial particularity, Ernestus and von Oswald thought otherwise, returning to the song and the roots reggae voice.

By now the duo had founded the independent labels Chain Reaction and Burial Mix, Rhythm & Sound and Main Street. The Burial Mix releases saw Ernestus and von Oswald collaborating with Dominican vocalist Tikiman, integrating Rastafarian lyrics and songforms into electronica. Their six releases emphasise the extent to which the duo had pulled away from electronica's Euro-American instrumental orthodoxy towards Jamaican tradition. Recent releases find them working with veteran Jamaican vocalist Cornell Campbell.

The late 90's also saw dub as a sonic process infiltrating the gallery space of the art world. In 1998, Hallucinator, in the guise of Flow Motion (the name the group reserve for audiovisual projects), Eshun and the photographer Jason Evans curated *Dub Housing, the Exhibition, Symposium and Concert for Remake:Remodel Secret Histories of Life, Pop, Art and the Avant-Garde*, held at Steirischer Herbst in Graz, Austria from September to November.

Dub Housing explored the ways in which dub provided a sonic understanding of art and society. Instead of providing a sociology of the sonic, the curators approached dub as a thought process with multidisciplinary possibilities. Here Jamaican pop became a way of *thinking* of migration and a means of mutation with a view to producing conceptual art in dialogue with pop's art of cross-cultural kinaesthesia. This preoccupation has developed into ghost dance, a concern with the possibilities of audiovisual sonic art as a "dispersal of national boundaries refigured in mobile, improvised dub space."

Kodwo Eshun and Edward George

Sequencer Hardware or software enabling sound sequences to be replayed identically. It handles the constitutive sequences of a piece, and in so doing defines in some respect the "partition" of an electronic work.

Sonic Whereas the equivalent French term defines sound's specifically physical nature, the English term "sonic" also refers to sound's ability to generate a particular relationship with the listener's space and time. This semantic extension arose in the 1950's in parallel with the technological revolution, in particular with the development of recording techniques and their increased accessibility.

Sound system Term referring both to the device and those who operate it. In Jamaica, where the term originated, the sound system is traditionally piloted by one or more "selectors" (the local denomination for DJ's), an operator in charge of effects who looks after the playing of the music, and one or more Deejays (the local denomination for MC's).

Synthesizer An electronic device which produces sounds by generating audio waves, modelled by successive treatments through envelope generators, filters, low-frequency oscillators, modulators and so on. The first to appear on the market, analogical synthesisers are based on the model, invented by Dr Robert Moog in the early 1960's, of an instrument including a variety of analogical modules that can be interconnected through a system of voltage control.

Techno In more restricted usage, "techno" refers to the music invented by Derrick May, Kevin Saunderson and Juan Atkins in 1988 in Detroit, inspired by Kraftwerk and New York electro-funk. It is dark, repetitive and dance-oriented music. Today, by a somewhat abusive and reductive extension of logic, the term "techno" is used to refer to the great majority of electronic music production.

Trance This variant of techno, which developed principally in Germany and England, is characterised by the use of throbbing layers in loops or spirals against a background of fast-paced rhythms. This form of techno borrows a certain psychedelic imagery from the 1970's, and is particularly marked by references to India, where numerous trance raves were organised on the beaches of Goa – hence the frequently-used name of “Goa Trance” linked to this kind of music.

Travellers Part of a “new hippie movement,” these nomadic tribes, most of whom are from Great Britain, began to take part in techno meetings at the beginning of the 1990's.

Trip hop Initially instrumental hip hop, based on slow rhythms, trip-hop now refers to all electronic music based upon the rhythmic underpinnings of hip hop, whether it be sung or not. This somewhat frowned-upon term was allegedly invented by an English journalist in the early 1990's. Bristol became one of its capital cities, being the hometown of several artists (Massive Attack, Portishead, Tricky) who played a role in ensuring a certain popularity for the genre.

VJ Acronym for video-jockey – a sort of visual DJ, image-mixer, whose art often accompanies electronic music.

CAGEAN PHILOSOPHY: A DEVIOUS VERSION OF THE CLASSICAL PROCEDURAL PARADIGM FRANCISCO LÓPEZ

The history of modern music in the second half of this century has been drastically and deeply marked by one name: John Cage. Much more than his music, his ideas have been so influential that it would not be an exaggeration to think of most present avant-garde/experimental/contemporary music scenes as being Cagean to a greater or lesser extent. Although this is more clear and intense in the United States and Canada, it also occurs in the rest of the Western world.

It is my belief that this influence has been – and indeed still is – severely harmful for music and that Cagean philosophy, in its essence, is an exacerbated version of a classical paradigm in traditional Western music. My criticism is not a personal attack on Cage, who, as far as I know, was a very nice person (although this depends on the subjective concept of “nice”). On the contrary, it is a critical analysis of what I understand as the core of his musical thought and of its consequences in modern music and musical thinking. If – as many Cageans often suggest – Cage was never an active upholder of his ideas, then I must be criticising Cageans. Furthermore, I must stress the fact that these anti-Cagean arguments are part of a larger critique of what I consider a wider problem in modern music. My goal is not to fight against an already established system of values just for the sake of fighting – I don't believe in the need of change by definition nor in the crusades against the traditional by themselves – but because these values have a profound effect in stating what is important in music and, consequently, in the resulting music.

Cage's musical thought can be foreseen as a very good solution to his personal problems with the question of composition. Without doubt his escape path from the compositional challenges faced as a student of Schönberg was outrageous and brilliant in the sense that he not only found a non-Schönbergian solution but it also led him to explore new fields that were far beyond serialism. The essence of this solution – or, in other words, of Cage's main contribution – can be foreseen as a proposition of non intervention, of decision-free attitude, of dissoluteness of the idea of composer/composition, deeply rooted in (or at least explicitly connected with) Zen philosophy. Randomisation of sets of possible decisions regarding the creation of music is thus understood as a form of liberation of the music from the imperatives of human intervention. An explicit and strong sense of beauty is found in the fact that some or all the organisational/structural/constituent features of some music have been generated independently of us (a very common appreciation in the realms of improvised music). Music would thus be freed from taste and memory, specifically from traditions concerning music-making. Indeed, in the Cagean microcosmos any sound is music: "Music is sounds, sounds around us whether we're in or out of concert halls," "Sounds we hear are music," which is generally postulated by Cageans as a historical statement expanding the concept of music to a terrain with virtually no frontiers. And so it is the statement on the non-existence of silence: "There is no such thing as an empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make a silence, we cannot."

It is understandable that all of this sounded (and still sounds) revolutionary for most traditionalist mentalities, but is it? Why? What's the direction – if any – of that "revolution"?

These thoughts could certainly be considered as astoundingly atypical for that time, but in no way revolutionary with regard to the change of basic concerns and focus of traditional Western music. Every struggle in Cagean philosophy is centred (or arises from) the procedures in music creation, no matter how radical or how anti-creative the proposition made seems to be. The apparently radical confrontation with traditional compositional concerns is a devious way of being trapped once again in the old pitfall of proceduralism and craftsmanship as reference points for the understanding of music. Thus, the classical paradigm on the relevance of compositional techniques is not only kept well present

but further elevated to a category of defining idea in music (something not new but perhaps exaggerated in a peculiar way). In this sense, a strict formalist/structuralist view of music is not essentially different from the Cagean one; both share in a very intimate way the methodical conception of the musical world. While they can be fiercely fighting for a different system of values, this system relates to the same thing.

The Cagean proposition of composer/composition dissoluteness is a vain attempt to run away from oneself, a rhetorical game of deciding-not-to-decide that has not consequently been followed by any known Cagean, including Cage. Concepts of indeterminacy and non-intervention, rhetorically connected to Zen philosophy, are used as mere adornments of an attitude that, not having the awareness or the courage to be fully consistent with them, still firmly maintains the academic version of the figure of the composer. Instead of being a solid nihilistic achievement that shakes some academic foundations (assuming this to be something desirable), it transforms music practitioners into (or induces them to become) mere executors of a randomising liturgy. Thus, it is decided in which way randomness is going to be applied within the musical action that is being carried out, often achieving the surprise/enchantment of naive audiences.

The application of a random procedure for eliciting/creating/constructing a piece is a perfectly defined, intentional and clearly designated decision, even though the randomisation procedure is serious (i.e., according to a formal probabilistic theory) and "total" (i.e., with equal probability for any possible event). The belief that one is doing random music when proceeding in such a way is formally equivalent to the statement/affirmation that music is the set of parameters and the set of events to which the probabilistic procedure is going to be applied to. If music is not just that (as I believe), then a *decision* has been made, selecting some of the possible parameters to be subjected to the procedure. According to this, it's impossible to conceive a total random music, freed of taste and memory. And, indeed, randomisation has become another tradition of music regarding procedures in music-making. It is actually an extreme form of formalism, as such formalism (but pragmatically justified) is understood and applied in science (e.g., methodical application of randomisation procedures to obtain adequate samples in empirical studies).

Nevertheless, even more relevant than the discussion of their consistency and feasibility is the question of what is the conception of music be-

hind these propositions. A hypothetical total cessation of decision could be fully consistent with the idea of non-intervention, but will also be the destruction of music, for music is human, while sound existence is not. When Cage equates music with sounds, he either destroys the entity of music in an unconscious reductionism to pure physics or denies the possibility of non-musical existence of sound, which, in the end, are equivalent. In the face of the classical discrimination of some sounds as non-musical according to untenable criteria of tonality or "pleasantness" – but with the same futile attempt at universality – Cagean thought assigns a reactionary, indiscriminate *per se* value to all sounds. And, because of this, Cageans tend to quote Cage as the expander of music with the consideration of all sounds. As most of them probably know, this merit belongs to Luigi Russolo, who, unlike Cage, did not dissolve the entities but proposed the incorporation of sounds into music. I strongly believe that any sound *can be* music, but not that it *is* music. The essential difference, what converts a sound into music, is a human, subjective, intentional, non-universal, not necessarily permanent, aesthetic, *decision*. And this does not mean composition, nor academic definition, but a way of perceiving certain sounds in a certain time by a certain person. The problem – and common ground – of both the traditional and the Cagean definitions of music is that they rely on sound itself; they both state *which* sounds are music (whether only some or all). In my current world, music is an aesthetic perception/understanding/conception of sound. This is a very precise definition providing a totally non-absolute assignment of sounds to music. But I don't think we need, nor should we pursue, such an absolute assignment.

Cage's statement on the non-existence of silence is also deeply related to his conception of music, and it has been elevated to the category of philosophical dictum by many Cageans. It is, however, a puerile and misleading assertion, especially if we take into consideration that he needed to experience an anechoic chamber to realise what he realised: that absolute physical silence does not exist. This is as puerile and misleading as the assertion that a circle does not exist in reality; geometry would be impossible in the Cagean world. If music is sounds and we are always surrounded by sounds, silence obviously does not exist. This statement is nothing but a different version of the very definition of music. Within the context of this discussion, my simple but forceful reply would be: silence does indeed exist; in music. If I were a sound physicist I would say: when

the sound level is below a certain limit that I have fixed beforehand with a certain purpose, then there is silence.

So why am I concerned with this anti-Cagean criticism? Why do I think that this critique is important? Because no matter the background philosophy, no matter the concept addressed, no matter the context, the main point is always – and in a very essential sense – about the *way* music is made, about the *procedure*. And this is a misleading distraction for music. It distracts the attention of music practitioners (creators, perceivers or whatever) from the actual music to the way it has been made. The procedure becomes a value in itself, for its own sake. The effects of this distraction are very patent and widespread: in addition to the classical additives of, say, virtuosism and elegant spectacle, now we have additives of new procedural worship (evidently, not only as a consequence of Cagean thought), and the two are not essentially different in their effect on music. Cagean anti-compositional, anti-traditionalist propositions convert the procedure into the goal of music as much as traditional solfeggio, and distract the attention from essential qualities of music as much as traditional schools of music. I believe that Cage's "revolution," instead of "freeing music from taste and traditions," restricted it once again to the fences of the same old Western paradigm of formalism and proceduralism. It's no use to fight the traditions by just running away from them within their land and staying in a hideout offered by them and, therefore, illusory as a hideout. This is puerile and futile. Let's take on the traditions face to face instead of exaggerating what we want to change from them in a convulsive movement of negation. I don't think it's possible for music to be freed from taste and memory (and Cageans themselves are a proof of this), but, what is more important and relevant, I don't think it should; even in the more extreme position of anti-traditionalism.

Francisco López

Note

This text was first published at the author's web site, www.franciscolopez.net, in 1996.

BIBLIOGRAPHIC SELECTION

- ADORNO, Theodor Wiesengrund. *Philosophie der neuen Musik*. Tübingen: J. C. B. Mohr (P. Siebeck), 1949. English edition: *Philosophy of Modern Music*. New York: Continuum, 1984.
- *Quasi una fantasia*. *Musikalische Schriften II*. Frankfurt: Suhrkamp, 1963. English edition: *Quasi una Fantasia: Essays on Modern Music*. London / New York: Verso, 1992.
- *Über den Fetischcharakter in der Musik und die Regression des Hören*. Frankfurt: Suhrkamp, 1973.
- ALTMAN, Rick. *Sound Theory, Sound Practice*. New York: Routledge, 1992.
- ARMBRUSTER, Greg; DARTER, Tom. *The Art of Electronic Music*. New York: W. Morrow, 1984.
- ATTALI, Jacques. *Bruits. Essai sur l'économie politique de la musique*. Paris: PUF, 1977. English edition: *Noise: The Political Economy of Music*. Minneapolis: University of Minnesota Press, 1985.
- AUGOYARD, Jean-François; TORGUE, Henry. *À l'écoute de l'environnement. Répertoire des effets sonores*. Marseilles: Parenthèses, 1995.
- BARR, Tim. *Kraftwerk. From Düsseldorf to the Future (with Love)*. London: Ebury, 1998.
- BARTHES, Roland. *L'obvie et l'obtus: essais critiques III*. Paris: Seuil, 1982.
- BIRGY, Philippe. *Mouvement techno et transit culturel*. Paris: L'Harmattan, 2001.
- BOSSEUR, Jean-Yves (dir.). *Le Sonore et le Visuel. Intersections musique/arts plastiques aujourd'hui*. Paris: Dis Voir, 1995.
- BREWSTER, Bill; BROUGHTON, Frank. *Last Night a DJ Saved My Life. The History of the Disc Jockey*. New York: Grove Press, 2000.
- BUSSY, Pascal. *Kraftwerk. Man, Machine and Music*. London: SAF, 1993.
- CAGE, John. *Silence*. Middletown, Conn.: Wesleyan University Press, 1961.
- *For the Birds*. Boston: M. Boyars, 1981.
- CASATI, Roberto; DOKIC, Jérôme. *La Philosophie du son*. Nîmes: Jacqueline Chambon, 1994.
- CHADABE, Joel. *Electric Sound. The Past and Promise of Electronic Music*. Upper Saddle River, New Jersey: Prentice Hall Press, 1997.
- CHION, Michel. *La Musique électroacoustique*. Paris: PUF, 1982.
- *Musiques, médias et technologies. Un exposé pour comprendre, un essai pour réfléchir*. Paris: Flammarion, 1994.
- *Le Son*. Paris: Nathan Université, 1998.
- COLLIN, Matthew. *Altered State. The Story of Ecstasy Culture and Acid House*. London / New York: Serpent's Tail, 1997.
- COTT, Jonathan. *Stockhausen. Conversations with the Composer*. New York: Simon and Schuster, 1973.

- CRITICAL ART ENSEMBLE. *The Electronic Disturbance*. New York: Autonomedia, 1994.
- DAHLHAUS, Carl. *Aesthetics of Music*. Cambridge: Cambridge University Press, 1982.
- DAVIS, Erik. *TechGnosis. Myth, Magic and Mysticism in the Age of Information*. New York: Harmony Books, 1998.
- DELALANDE, François. *Le Son des musiques*. Paris: Buchet/Chastel, Institut National de l'Audiovisuel, 2001.
- DEMOUGIN, Thierry. *Le Laboratoire du Docteur Mix. Guide de l'univers du home studio*. Paris: IRMA Éditions, 1999.
- DERY, Mark. *Culture Jamming. Hacking, Slashing and Sniping in the Empire of Signs*. Westfield: Open Magazine Pamphlet Series, 1993.
- *Flame Wars. The Discourse of Cyberculture*. Durham, North Carolina: Duke University Press, 1995.
- *Escape Velocity. Cyberculture at the End of the Century*. New York: Groove Press, 1996.
- *Pyrotechnic Insanitarium. American Culture on the Brink*. New York: Groove Press, 1999.
- DIEDERICHSEN, Diedrich. *Sexbeat*. Cologne: Kiepenheuer & Witsch, 1985.
- *Freiheit macht arm. Das Leben nach Rock'n'roll 1990-93*. Cologne: Kiepenheuer & Witsch, 1993.
- *Politische Korrekturen*. Cologne: Kiepenheuer & Witsch, 1996.
- (dir.). *Loving the Alien. Science-Fiction, Diaspora, Multikultur*. Berlin: ID-Verlag, 1998.
- *Der lange Weg nach Mitte. Der Sound und die Stadt*. Cologne: Kiepenheuer & Witsch, 1999.
- *2000 Schallplatten von 1979-1999*. Höfen: Hannibal, 2000.
- "The Natural Laws of Music. Simon Reynolds and Kodwo Eshun Discuss the State of Music Criticism," *Frieze*, no. 46, (London) April - May 1999.
- "Visual Culture-Ein Projektbericht." *Texte zur Kunst*, no. 36, (Cologne), December 1999.
- ; HEBDIGE, Dick; OLAPH-DANTE, Marx. *Schocker-Stile und Moden der Subkultur*. Hamburg: Rowohlt, 1983.
- DRIVER, Ian. *Un siglo de baile: desde el vals hasta el hip hop*. Barcelona: Blume, 2001.
- DURING, Elie. "Logiques de l'exécution. Cage/Gould," *Critique [Musique(s). Pour une généalogie du contemporain]*, n° 639-640, (Paris) August - September 2000.
- ENO, Brian. *A Year with Swollen Appendices. Brian Enos's Diary*. London: Faber and Faber, 1996.
- ; RUSSELL, Mills. *More Dark Than Shark*. London: Faber and Faber, 1986.
- ERNOULD, Frank; FORTIER, Denis. *Home Studio*. Paris: Dunod, 2001.
- ESHUN, Kodwo. *More Brilliant Than the Sun. Adventures in Sonic Fiction*. London: Quartet Books, 1998.
- "Future Sound of Berlin," *The Wire*, no. 169, March 1998.
- "La capture du mouvement," *Nomand's Land*, no. 3, 1998.
- FRITH, Simon. *Performing Rites. On the Value of Popular Music*. Cambridge, Mass.: Harvard University Press, 1996.

- *Music and Copyright*. Edimburg: Edinburgh University Press, 1993.
- *The Sociology of rock*. London: Constable, 1978.
- ; GOODWIN, Andrew; GROSSBERG, Lawrence. *Sound and Vision. The Music Video Reader*. London / New York: Routledge, 1993.
- GAILLOT, Michel. *Sens multiple. La Techno, un laboratoire artistique et politique du présent*. Paris: Dis Voir, 1998.
- GALLET, Bastien. "La Boucle infinie du breakbeat: remarques sur les musiques électroniques," en *Critique, [Musique(s): pour une généalogie du contemporain]*, no. 639-640, August - September 2000.
- GENEVOIS, Hugues; VIVO, Raphaël de (dir.). *Les Nouveaux Gestes de la musique*. Marseilles: Parenthèses, 1999.
- GILL, Valentine; SKELTON, Tracey. *Cool Places. Geographies of Youth Culture*. London / New York: Routledge, 1998.
- GLINSKY, Albert. *Theremin. Ether Music and Espionage*. Urbana: University of Illinois Press, 2000.
- GOULD, Glenn. *Écrits*. Paris: Fayard, 1983 and 1985, 2nd vol.
- GRIFFITHS, Paul. *A Guide to Electronic Music*. London: Thames & Hudson, 1979.
- GROOS, Ulrike; MÜLLER, Markus. *Make it Funky. Crossover zwischen Musik, Pop, Avant-garde und Kunst*. Cologne: Otagon, 1998.
- GRYNSZPAN, Emmanuel. *Bruyante Techno. Réflexion sur le son de la free party*. Nantes: Mélanie Sèteun, 1999.
- GUIBERT, Jérôme. *Les Nouveaux Courants musicaux, simples produits des industries culturelles?* Nantes: Mélanie Sèteun, 1998.
- HALL, Stuart. *Resistance through Rituals: Youth Subcultures in Post-War Britain*. London: Hutchinson, 1976.
- HAVELOCK, Nelson; GONZALES, Michael A. *Bring the Noise. A Guide to Rap Music and Hip-Hop Culture*. New York: Harmony Books, 1991.
- HEATHFIELD, Adrian. *Small Acts. Performance, the Millennium and the Marking of Time*. London: Black Dog, 2000.
- HEBDIGE, Dick. *Cut' n' Mix. Culture, Identity, and Caribbean Music*. London / New York: Methuen, 1987 / Routledge, 1990.
- *Subculture: The Meaning of Style*. London / New York: Routledge, 1991.
- HENNION, Antoine. *La Passion musicale: une sociologie de la méditation*. Paris: Métailié, 1993.
- HOSOKAWA, Shuhei. "The Walkman Effect," in *Popular Music*, no. 4, 1984.
- JAMES, Martin. *State of Bass. Jungle. The Story so Far*. London: Boxtree, 1997.
- JANKÉLEVITCH, Vladimir. *La Musique et l'Ineffable*. Paris: Armand Colin, 1981; Le Seuil, 1983.
- *Le Je-ne-sais-quoi et le Presque-rien*. Paris: PUF, 1957.
- JOHNSON, Phil. *Straight Outa Bristol. Massive Attack, Portishead, Tricky and the Roots of Trip Hop*. London: Hodder & Stoughton, 1996.
- KAHN, Douglas. *Noise, Water, Meat. A History of Sound in the Arts*. Cambridge, Mass.: MIT Press, 1999.
- ; WHITEHEAD, Gregory. *Wireless Imagination. Sound, Radio and the Avant-garde*. Cambridge, Mass. / London: MIT Press, 1992.

- KASEMETS, Udo. "I Ching Music. John Cage and I Ching." *Musicworks*, 62, 1995.
- KEMPSTER, Chris. *History of House*. London: Sanctuary, 1996.
- KIVY, Peter. *The Fine Art of Repetition. Essays in the Philosophy of Music*. Cambridge / New York: Cambridge University Press, 1993.
- *Authenticities-Philosophical Reflections on Musical Performance*. Ithaca, NY: Cornell University Press, 1995.
- KOSTELANETZ, Richard. *Conversing with Cage*. New York: Limelight, 1988.
- *On Innovative Musicians*. New York: Limelight, 1989.
- *John Cage. An Anthology*. New York: Da Capo Press, 1991.
- KURZWEIL, Ray. *The Age of Spiritual Machines. When Computers Exceed Human Intelligence*. London: Viking, 1999.
- LA MOTTE-HABER, Helga de (dir.). *Klangkunst*. Munich / New York: Prestel, 1996.
- LELOUP, Jean-Yves; RASTOIN, Pierre-Emmanuel; RENOUlt, Jean-Philippe. *Global Tekno. Voyage initiatique au coeur de la musique électronique*. Nancy: Camion Blanc, 1999.
- LEPPERT, Richard D.; McCLARY, Susan. *Music and Society. The Politics of Composition, Performance and Reception*. Cambridge: Cambridge University Press, 1987.
- LEVINSON, Jerrold. *L'Art, la musique et l'histoire*. Paris: L'Éclat, 1998.
- LEVY, Pierre. *Cyberculture*. Paris: Odile Jacob, 1997.
- LIPPMAN, Edward. *A History of Western Musical Aesthetics*. Lincoln / London: University of Nebraska Press, 1992.
- LOMAX, Alan. *The Land Where the Blues Began*. London: Methuen, 1993.
- LUCIER, Alvin. *Reflections*. Cologne: Edition MusikTexte, 1995.
- LYOTARD, Jean-François. "Plusieurs silences," in *Des dispositifs pulsionnels*. Paris: 10/18, 1973.
- LLES, Luis. *Dance music*. Madrid: Celeste, 1998.
- McKAY, George. *DIY Culture. Party & Protest in Nineties Britain*. London / New York: Verso, 1998.
- MCLUHAN, Marshall. *The Gutenberg Galaxy. The Making of Typographic Man*. Toronto: University of Toronto Press, 1962.
- *Understanding Media. The Extensions of Man*. New York: McGraw-Hill, 1964.
- ; FIORE, Quentin. *The Medium is The Massage. An Inventory of Effects*. New York: Random House, 1967.
- MARCUS, Greil. *Lipstick Traces. A Secret History of the 20th Century*. Cambridge, Mass.: Harvard University Press, 1989.
- NEWQUIST, Harvey P. *Music & Technology*. New York: Billboard Books, 1989.
- NYMAN, Michael. *Experimental Music. Cage and Beyond*. New York: Schirmer Books / London: Studio Vista, 1974 / Cambridge: Cambridge University Press, 1999.
- OLIVE, Jean-Paul. *Musique et Montage. Essai sur le matériau musical au début du xx^e siècle*. Paris: L'Harmattan, 1999.
- PEPPERELL, Robert. *The Post-Human Condition*. Bristol: Intellect Books, 1995, 1997.
- PRENDERGAST, Mark J. *The Ambient Century. From Malher to Trance. The Evolution of Sound in the Electronic Age*. London: Bloomsbury, 2000.
- POSCHARDT, Ulf. *Dj Culture*. Hamburg: Rogner & Bernhard, 1995. English translation by S. Whiteside. *Dj Culture*. London: Quartet Books, 1998.

- POTASH, Chris. *Reggae, Rasta, Revolution. Jamaican Music from Ska to Dub*. New York: Schirmer Books / London: Prentice Hall International, 1997.
- PUG, Luis; TALENS, Jenaro (eds.). *Las culturas del rock*. Valencia: Pre-Textos, 1999.
- PUG, Luis; TALENS, Jenaro. *Rocking, Writing, and Arithmetic*. Valencia: Universitat de Valencia, 1993.
- RANCIÈRE, Jacques. *Le Partage du sensible. Esthétique et politique*. Paris: La Fabrique, 2000.
- *L'Inconscient esthétique*. Paris: Galilée, 2001.
- REDHEAD, Steve. *The End-of-the-Century Party. Youth and Pop Towards 2000*. Manchester: Manchester University Press, 1990.
- *The Clubcultures Reader. Readings in Popular Cultural Studies*. Oxford / Malden, Mass.: Blackwell, 1998.
- *Subculture to Clubcultures. An Introduction to Popular Cultural Studies*. Oxford / Malden, Mass.: Blackwell, 1997.
- REYNOLDS, Simon. *Blissed Out. The Raptures of Rock*. London: Serpent's Tail, 1990.
- *Energy Flash. A Journey Through Rave Music and Dance Culture*. London: Picador, 1998. American edition: *Generation Ecstasy. Into the World of Techno and Rave Culture*. Boston: Little Brown & Company, 1998.
- RIVEST, Johanne. "John Cage and the Fusion of Art and Life," *Musicworks*, 62, 1995.
- ROSE, Tricia. *Black Noise. Rap Music and Black Culture in Contemporary America*. Middletown, Conn.: Wesleyan University Press, 1994.
- ; ROSS, Andrew. *Microphone Fiends. Youth Music & Youth Culture*. New York / London: Routledge, 1994.
- RUSSOLO, Luigi. *L'Arte dei rumori*. Milan: Edizioni Futuriste di Poesia, 1916.
- SAKOLSKY, Ron; WEI-HAN Ho, Fred. *Sounding Off! Music as Subversion / Resistance / Revolution*. New York: Autonomedia, 1995.
- SAUVANET, Pierre. *Le Rythme et la Raison*. Paris: Kimé, 2000, 2 vol.
- ; WUNENBURGER, Jean-Jacques (dir.). *Rythmes et Philosophie*. Paris: Kimé, 1996.
- SCHAEFER, John. *New Sounds. A Listener's Guide to New Music*. New York: Harper & Row, 1987.
- SCHAFER, R. Murray. *The Tuning of the World*. New York: Alfred Knopf, 1977. Reprint: *The Soundscape. Our Sonic Environment and the Tuning of the World*. Rochester, Vermont: Destiny Books, 1994.
- *The Thinking Ear*. Toronto: Arcana, 1986.
- SHAPIRO, Peter. *Drum'n'bass. The Rough Guide*. London: Rough Guides, 1999.
- *Modulations. A History of Electronic Music. Throbbing Words on Sound*. Amsterdam: D.A.P. / New York: Caipirinha Productions, 2000.
- SHUSTERMAN, Richard. *Pragmatist Aesthetics. Living Beauty, Rethinking Art*. Oxford / Malden, Mass.: Blackwell, 1992.
- SICKO, Dan. *Techno Rebels. The Renegades of Electronic Funk*. New York: Billboard Books, 1999.
- SUPPER, Martin. *Elektroakustische Musik und Computermusik. Geschichte, Ästhetik, Methoden, Systeme*. Hofheim: Wolke Verlag, 1997.
- SUTHERLAND, Roger. *New Perspectives in Music*. London: Sun Tavern Fields, 1994.
- SZENDY, Peter. *Écoute. Une histoire de nos oreilles*. Paris: Minuit, 2001.

- *Musica practica. Arrangements et phonographies de Monteverdi à James Brown.* Paris: L'Harmattan, 1997.
- TATE, Greg. *Flyboy in the Buttermilk. Essay on Contemporary America.* New York: Simon & Schuster, 1992.
- TENNEY, James. "James Tenney: Transparent to Sound. Interview with Gayle Young." *Musicworks*, 64, 1996.
- THÉBERGE, Paul. *Any Sound You Can Imagine. Making Music/ Consuming Technology.* Hanover, New Hampshire: University Press of New England, Wesleyan University Press, 1997.
- THORNTON, Sarah. *Club Cultures. Music, Media and Subcultural Capital.* Cambridge: Polity, 1995. American edition: Hanover, New Hampshire: University of New England, 1996.
- TOOP, David. *Ocean of Sound. Aether Talk. Ambient Sound and Imaginary Worlds.* London: Serpent's Tail, 1995.
- *The Rap Attack. African Jive to New York Hip Hop.* London: Pluto Press, 1984. Expanded edition: *Rap Attack 2. African Rap to Global Hip Hop.* London: Serpent's Tail, 1991. Expanded edition: *Rap Attack 3. African Rap to Global Hip Hop.* London: Serpent's Tail, 2000.
- *Exotica. Fabricated Soundscapes in a Real World.* London: Serpent's Tail, 1999.
- "A Brief History of Sampling," *The Wire*, no. 139, September 1995.
- "Humans, Are They Really Necessary?," *The Wire*, no. 186, August 1999.
- "Sound in Art," *Bookforum* (New York), winter 1999.
- "The Generation Game. Generative Music and Evolutionary Systems," *The Wire*, no. 217, May 2001.
- "Microrhythms," *Black Book* (San Francisco), summer 2001.
- WEIBEL, Peter (dir.). *Kunst ohne Unikat. Multiple und Sampling als Medium Techno-Transformationen der Kunst.* Cologne: Walter König, 1999.
- WEISS, Allen S. *Experimental Sound and Radio.* Cambridge, Mass. / London: MIT Press, 2000 (1st publication in *The Drama Review* [New York], special issue, vol. XL, no. 3, autumn 1996).
- WÖRNER, Karl Heinrich. *Karlheinz Stockhausen. Werk + Wollen. 1950-1962.* Rodenkirchen / Rhein: P.J. Tonger, 1963. English translation by B. Hopkins. *Stockhausen. Life and Work.* London: Faber and Faber, 1973.
- ZORN, John. *Arcana. Musicians on Music.* New York: Granary Books, 2000.

FUNDACIÓ MUSEU D'ART CONTEMPORANI DE BARCELONA

Honorary President
S.M. La Reina Doña Sofia

President
Leopoldo Rodés Castañé*

First Vice-president
Javier Godó Muntañola,
Conde de Godó*

Second Vice-president
Lola Mitjans de Vilarasau*

Treasurer
Bruno Figueras*

Secretary
Joan-Jordi Bergós*

Trustees
Macià Alavedra i Moner*
Manuel Alorda Escalona
Plácido Arango Arias
Núria Basi More
José Felipe Bertrán de
Caralt

Elena Calderón de Oya*
Josep M. Catà i Virgili*
Josep Ferrer i Sala
Xavier M. Ferrero i Jordi
Santiago Fisas i Ayxelà
Ricard Fornesa i Ribó
Bonaventura Garriga
Brutau

Joan Gaspart i Solves
Dinath de Grandi de
Grijalbo

José M° Juncadella
Salisachs*

Lady Jinty Latymer
Alfonso Libano Daurella
Hans Meinke
Casimir Molins i Ribot
Ramon Negra Valls
Jorge de Pallejá Ricart
Alejandro Plasencia
García

Marià Puig i Planas
Anna Ramon i Llopart
José Antonio Rumeu y de
Delás*

M° Teresa Samaranch
Salisachs

Jordi Soley i Mas
Josep Suñol Soler
Marta Uriach Torelló
Mercedes Vilá Recolons
Fernando Villalonga
Campos
Victoria Ybarra de Oriol,
Baronesa de Güell
Juan Ybarra Mendaro

* Members of the Executive
Comission

Corporate Trustees
ACCIONA, S.A.
Aigües de Barcelona, S.A.
Autopistas C.E.S.A.
Banc Sabadell, S.A.
BBVA

Cambra de Comerç,
Indústria i Navegació de
Barcelona

Cementos Molins, S.A.
Círculo de Lectores, S.A.
Cobega, S.A.
Codorniu, S.A.

Danone, S.A.
El País
F.E.C.S.A. E.N.H.E.R
(grupo ENDESA)
Freixenet, S.A.

Fomento de
Construcciones y
Contratas, S.A.
Fundació Antoni Serra
Santamans

Fundació Catalana
Occident
Fundació Miarnau

Fundació Puig
Gallina Blanca, S.A.
Gas Natural S.D.G., S.A.

Grupo Husa
Grupo Planeta
Grupo Torras
Grupo Zeta
"la Caixa"

Lafarge Asland, S.A.
La Vanguardia
Nissan Motor Ibérica,
S.A.

Salvat Editores, S.A.
SEAT, S.A.
Uniland Cementera, S.A.

SUPPORTERS

Honorary Members
Repsol YPF, S.A.

Major Benefactors
M. Carmen Buqueras de
Riera
Daniel Cordier
Juan March Delgado
Media Planning Group, S.A.
Jorge Oteiza
Leopoldo Rodés Castañé
Fundación Bertrán
Fundación Retevisión
Sara Lee Corporation

Corporate Benefactors
Banco Urquijo
El Corte Inglés, S.A.

Corporate Protectors
Fundación Cultural
Banesto
Merrill Lynch

Corporate Contributors
Andersen - Garrigues &
Andersen
Basi, S.A.
Citigroup Private Bank
Clifford Chance
Estudi Regomir-Sala
Artur Ramon
Ferrater Campins
Morales

Fundació Miguel Torres
Gráficas Pacífic, S.A.
Grupo Esteve
Musini, S.A.
Recoletos Grupo de
Comunicación
Sala Gaspar-Antoni Clavé
Synera Systems, S.L.

Individual Benefactors
Guy de Laforest
Enrique Ordóñez Las
Heras

Individual Protectors
Diego Hidalgo Schnur
Dinath Grandi de Grijalbo
José M° Juncadella
Salisachs
Lady Jinty Latymer

Individual Contributors
Fundación Cuatrecasas
Eva de Vilallonga
Ventura Garcés Bruses
Antonio Paricio

Contemporary Circle
Lluís Badia Almirall
Instituto Dr. Javier de
Benito
Manuel Curtichs Pérez-
Villamil
Ernesto Ventós Omedes
Hubert de Wangen

El Taller
José Luis Blanco Ruiz
Cristina Castañer Sauras
Pilar Cortada Boada
Ana Díaz Suñer
María Entrecanales
Franco

Fernando Escura Seres
Pedro de Esteban Ferrer
Josep Gaspart i Bueno
Teresa Guardans de
Waldburg
Pilar Libano Daurella
Juan Lladó Arburúa
Álvaro López Lamadrid
Ignacio Malet Perdigó
Mercedes Mas de Xaxàs
Faus

Sara Puig Alsina
Jordi Pujol Ferrusola
Alfonso Rodés Vilà
Francesc Surroca
Cabeza
Tomas Tarruella Esteva
Alejandro Ventos
Omedes

Director
Ainhoa Grandes Massa

Fundraising Department
Sandra Miranda Cirlot

Administration
Claudia Lepori Osés



Honorary Member

CONSORCI DEL MUSEU D'ART CONTEMPORANI DE BARCELONA

President
Molt Hble. Sr. Jordi Pujol

First Vice-president
Excm. Sr. Joan Clos

Second Vice-president
Sr. Leopoldo Rodés

Members

Generalitat de Catalunya
Hble. Sr. Macià Alavedra
Hble. Sr. Jordi Vilajoana
Sr. Josep Miquel García
Sr. Marc Mayer
Sra. Aurora Sanz

Ajuntament de Barcelona
Il·lma. Sra. Catalina Carreras-
Moysi
Il·lm. Sr. Ferran Mascarell
Sr. Sergi Aguilar
Sr. Josep Corredor Matheos
Sr. Jordi Martí

Fundació Museu d'Art Contemporani
Sr. Josep Maria Catà
Sr. Javier Godó
Sra. Lola Mitjans
Sr. Marian Puig
Sr. José Antonio Rumeu de Delás

Secretary in Chief
Anna Ramon i Llopart

SUPPORTING MEMBERS
OF MACBA
Aon Gil y Carvajal
Marisa Díez de la Fuente
Carlos Durán
Luisa Ortínez



Sponsor of MACBA

MUSEU D'ART CONTEMPORANI DE BARCELONA

Director
Manuel J. Borja-Villel

Advisory Committee
Lynne Cooke
María de Corral
Chris Dercon
Vicent Todolí

Chief Executive Officer
Gemma Sendra

Secretaries
Núria Hernández
Gemma Romaguera

COMMUNICATION AND PUBLIC RELATIONS

Head
Nicola Wohlfarth
Assistant
Victòria Cortés

EXHIBITIONS

Head
José Lebrero Stals
Curator
Roland Groenenboom
General Coordinator
Anna Borrell
Coordinators
Cristina Bonet
Teresa Grandas
Assistants
Meritxell Colina
Marta Peinador
Aida Roger de la Peña

COLLECTION

Curator
Antònia M. Perelló
Registrar
Ariadna Robert

PUBLIC PROGRAMS

Head
Jorge Ribalta
Coordinators
Antònia M. Cerdà
Sònia López
Yolanda Nicolás
Myriam Rubio

PUBLICATIONS

Head
Mela Dávila
Catalogue Coordinator
Anna Jiménez Jorquera
Graphic Coordinator
Elisabet Surís

LIBRARY

Head
Marta Vega
Assistants
Eva Galofré
Núria Roig

CONSERVATION

Head
Silvia Noguer
Conservator
Xavier Rossell

ADMINISTRATION

Head of Financial Management
Joan Cavaller
Assistant Manager
David Salvat
Assistant
Mara Pons

Head of Administration and
Human Resources
Carme Espinosa

Assistant
Mireia Calmell

Computer Services
Imma Losada

Sponsorship
Rosario Peiró

BUILDING CONSERVATION AND EXHIBITION INSTALLATION

Head
Isabel Bachs
Collaborator
Adelina Casanova

MAINTENANCE SERVICE

Head
Alberto Santos
Assistants
Pedro Navarro
Jordi Rando

MAIL ROOM CLERK
Eudald Núñez
Jordi Rodríguez

RECEPCIONIST
Ariadna Pons

EXHIBITION

Curator
Christine Van Assche
(curator Centre Pompidou)

Concept
Corinne Castel
(audiovisual production)
Laurence Le Bris (scenography)
Annalisa Rimmaudo
(research)
Arnaud Reveillon
(data base)
Alicia Jara (assistant)

MACBA
Project Director
Manuel J. Borja-Villel
Head of Exhibitions
José Lebrero Stals

Coordinator
Teresa Grandas
Assistant
Meritxell Colina

Registrar
Ariadna Robert

Architect and
Exhibition Designer
Isabel Bachs

Production
Adelina Casanova
Alberto Santos

CENTRE POMPIDOU

President
Jean-Jacques Aillagon

General Manager
Bruno Maquart

Direction
Alfred Pacquement

Production
François Belfort
Martine Silie
Anne Guillemet
Agnes Wolff

Audiovisual Production
Gerard Chiron (Head of
Artistic and Technical Production)
Victor Bissengue
Bernard Clerc-Renaud
Nicolas David
Murielle Dos Santos
Jean-Pierre Six

Digital Production
Bruno Gonthier
Franck Mazé

Web Site
Laelitia Rouiller

IRCAM
Odiler Vaillant
Eric Visscher

The exhibition *Sonic Process. A New Geography of Sounds* has been conceived and produced by



and held in collaboration with
the MACBA.

Venues

MACBA, Barcelona,
May 4 - June 30, 2002
MNAM / Centre Pompidou,
Paris, October 16, 2002 -
January 6, 2003

Podewil, Berlin,
March - May 2003

www.sonic-process.org



Museu d'Art Contemporani de
Barcelona (MACBA)
Plaça dels Àngels, 1
08001 Barcelona
Tel. +34 93 412 08 10
Fax. +34 93 412 46 02
www.macba.es

El MACBA wishes to
acknowledge the support of:
Arte, Consulado General de
México en Barcelona,
Figueras International
Seating, La Mallorquina,
Program 33, Secretaría de
Relaciones Exteriores de
México, The British Council.

Exhibition Sponsor:



With the collaboration of
RAC1 - RAC105

CATALOGUE

Edition
Mela Dávila

Coordination
Anna Jiménez Jorquera

Translation
Stephen Wright
Gregory Williams

Copy editing
Paul Martin

Design
dg Dave' n' Rave

Printing
Ingoprint, SA

Distribution
ACTAR
Roca i Batlle, 2
08023 Barcelona
Tel. 93 418 77 59
Fax 93 418 67 07
info@actar-mail.com
www.actar.es

- © of this edition, 2002, Museu d'Art Contemporani de Barcelona and Actar
- © of the texts, their authors
- © of the first edition in French of the texts by Diedrich Diederichsen, Elie During, Kodwo Eshun, Edward George, Jacques Rancière, David Toop and Christine Van Assche, Éditions du Centre Pompidou, Paris, 2002
- © of the first edition in English of the text by Simon Reynolds, Picador / Macmillan, 1998

All rights reserved
ISBN: 84-95951-13-4
DL B-17.148-2002

Printed and assembled
in the European Union